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THE PRESENT STATUS OF THE MEDICAL EXPERT.*

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Our present system of jurisprudence dates from a remote past. It has replaced the personal method of settling disputes and its later phase, trial by battle. Founded at a time when the national life was simple and civilization just beginning to displace the barbarism of the dark ages, it has, nevertheless, shown a remarkable elasticity in adapting itself to the changing conditions and increased complexity of a rapidly developing and maturer age.

To reason, however, that because our present system has endured for centuries therefore it should never be either changed or modified, does not seem good logic, nor is the incapacity to change a mark of excellence or perfection. "God alone knows what a petit jury will do" is an adage with which lawyers are not unfamiliar. That such a saying should have become proverbial is certainly not evidence that the present system is without its faults or shortcomings. The more than occasional vagaries of our petit juries arise from the fact that many cases now tried in the courts require of the jury more than a common-school education and ordinary intelligence to unravel the tangle of conflicting and often technical evidence and render a verdict which shall be in accordance with the actual facts. A hundred years ago there was little machinery in use, and the craftsman was in reality engaged in a handicraft, but at present the skilled craftsman of the earlier days of the republic has been replaced by an individual who is now nothing more than the tender of a piece of machinery. The problems of those times were those whose details were familiar to the juryman, because they were part of his daily life, or of such simple complexion as to be of easy comprehension. "Jurors reached their conclusions for the most part from personal knowledge already possessed." (Hist. Eng. Law, 2 Pollock-Maitland, 619-625.) The juries of that time were thus enabled to render verdicts which left little to be desired. To-day the circumstances which surround a jury are entirely different. Every decade adds new complexities to our civilization, and new perplexities to the ordinary juryman. He is often expected to unravel masses of technical evidence on subjects of which he is totally ignorant, to reconcile the evidence of warring experts and render a verdict according to the evidence. Is it any wonder that our present system sometimes shows signs of being overtaxed—in need of some modification or addition? Is it strange that a system that was quite adequate to the needs of a community which existed two centuries ago, should now show signs of inadequacy and incompleteness? Our national life has greatly changed and broadened, but our legal machinery has remained substantially the same. Nevertheless, the medical profession has found the lawyers perfectly willing to make proverbs concerning the uncertainties of a time-honored system, yet singularly conservative and unwilling to acknowledge it in need of amendment. This is partly due, no doubt, to the fact that our law is so largely made up of precedent. The courts of to-day are bound by the decisions of the courts of the past, whose decisions stand but whose judges are with the dust. There is good reason for conservatism in legal practice, but a precedent which has only the lapse of time in its favor is better honored in the breach than the observance, particularly where experience shows that it is the cause of frequent injustice when blindly followed, simply because it is precedent and so time honored.

To the medical profession there is no part of the administration of justice so important and of such interest as that which deals with medical expert evidence. Whatever else may be inefficient or defective in our present jury system, it is the present method of securing and presenting medical testimony to the jury that grieves and injures us.

The public judges any class of men according to their appearance in public; and, although our public functions are but incidents in our lives, merely occasional, unlike our confrères of the law and ministry, nevertheless the people continue to judge us according to our appearance when summoned to the courts to testify. In a recent article on expert testimony, Judge Woodward says of a prominent surgeon in this state, that he was asked the following question by the counsel for the prisoner: "Isn't it fair to assume if I had money to pay the physicians for their time that I could step out here in the city and secure half a dozen competent physicians who, in answer to the hypothetical question put by the district attorney, would give me exactly the opposite answer?" The witness replied: "I think it is." A survey of all the celebrated criminal cases of the past twenty-five years in which medical expert testimony has figured, would give ample proof of the truth of this answer. The record of the medical testimony in the countless damage suits which blockade the calendars of our courts would confirm it. Is it strange that the medical profession should occupy a lower plane in the public estimation than it deserves? It is unfortunately true that the testimony of the medical expert as at present procured and elicited in our courts, is utterly untrustworthy, and has brought unmerited disgrace

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and contumely on a body of worthy and self-sacrificing men. In the same article occur the following quotations from judicial opinions: From an opinion by Judge Goodrich: "Paid experts, swearing for or against the sanity of a prisoner, according to the amount of the fee and the person who calls them." Judge Rumsey: "The sole difference between the expert and an advocate being that he makes his argument under oath and that he endeavors to add the weight of the oath to the opinion of the advocate." Judge Adams of Canandaigua: "Expert witnesses are far more anxious to destroy each other . . . than to elucidate the particular question in issue."

These denunciations from the bench do not lack vigor. Is it then true that, in spite of the solemnity of our Hippocratic oath, our professed altruism, our unending record of charitable deeds, our high-minded codes of ethics, that we are, after all, but a set of hypocrites? Can an entire profession be so given over to the devil and his works as to deserve such denunciations? Are our ranks filled with liars and perjurers? Is it true that all the really good men follow the profession of the law, and do none of them by any chance filter into medicine? Let some psychologist or disciple of Lombroso scan the faces in this or any other assemblage of medical men and tell us whether we bear the stigmata of degeneracy, and are unable to tell the truth under oath if there is a dollar in telling a lie. On the contrary, the profession of medicine has ever been consecrated to the public service. When pestilence walked abroad in our land and its victims were falling on every side, struck down by the invisible arrows of death, then have legislatures adjourned in panic; judges, lawyers and clients fled from the courthouse until a more convenient season, but the physicians stayed behind. Had they some shield to interpose between their defenseless breasts and the darts of the unseen foe? No, they had no other shield save that which every brave man carries—an invincible determination, the inability to acknowledge fear, an overpowering sense of duty—and they interposed their own bodies between a stricken people and the midnight wrath, and fell by the wayside together with those they strove to save.

While this century was still in its swaddling clothes, in order to solve the mystery of the yellow death, men of our profession sought out and courted danger that they might rob the grim spectre of his mystery and his quiver of its most poisoned arrow. The members of the United States Army Yellow Fever Commission, who suffered themselves to be inoculated with the most dreaded of scourges, were just as truly the leaders of a forlorn hope as the uniformed band that storms a dangerous breach. Dr. Lazear died that others might live. He is not alone in his martyrdom, but stands enshrined in our hearts, the type of many who have gone before, and countless willing sacrifices that are to come. Such deeds as these have ever been the history of our profession. Is it possible, then, for virtue and mendacity to go hand in hand? Is an unselfish devotion to duty the twin brother of shameless greed? Says an ancient and sacred volume: "Do men gather grapes of thorns, or figs of thistles?" If medical expert testimony is at present without value, is it not reasonable to look for the cause of the defect elsewhere than in the personal character of the physicians or a faulty standard of professional morals? No one will contend that the men in our profession are less worthy of confidence in other respects than other classes of individuals, and whatever may have been our differences with respect to codes of ethics, they have never been along the line of a lowered standard of truthfulness.

There must, therefore, be some other cause for the present untrustworthiness of the medical witness, and if it is not in the individual nor in the professional standard, the courts and the public must look elsewhere for the defect; and, what is of far more importance, be willing to correct it when found. Judge Endlich of Pennsylvania says (Am. Law Rev. 32-851): "It is not expert testimony that is at fault; it is in our way of handling it." In Griggs vs. The Lake Clear Water Company (40 Cal., p. 405), the justice who presided at the trial of the cause wrote as follows: "Even men of the highest character and integrity are apt to be prejudiced in favor of the party by whom they are employed, and as a matter of fact, no expert is called until the party calling him is assured that his opinion will be favorable." Says an English authority, Lord Campbell: "Skilled witnesses come with such a bias on their minds . . . that hardly any weight should be given to their evidence." In an action for a dissolution of partnership, one of the parties employed an expert to examine the books and sought to have the expenses taxed on the losing party. In refusing, the court said: "If the services of an expert are necessary for the proper presentation and determination of the case, he should be appointed by the court. When he is in the employ of one of the parties, the temptation to act in the interest of such party is apparent. Therefore, in order to secure his fair and disinterested services, he should be appointed by the court and not by either of the parties." Another opinion from the Supreme Court is as follows: "Expert witnesses ought to be selected by the court, and should be impartial as well as skillful and learned." Then follows the remarkable statement: "A contrary practice is now probably too well established to allow the more salutary rule to prevail."

This admission is an aspersion on both the bar and the legislature. A judge on the bench admits the breakdown of the system, but feebly exclaims that it has been too long established to be changed. If the lawyers are proud of that admission, let them make the most of it. Says Judge Woodward in the article before quoted, poking fun at the doctors: "The medical expert of to-day would laugh at the opinion of the medical expert of 1678 and 1679. . . . A hundred years from now medical men will, no doubt, laugh at the medical opinion of 1902." If the learned justice had said that the medical expert of to-day disagrees with some of the opinions held 200 years ago, his logic would have been more exact. I would like, however, in view of the above plaintive excuse for the retaining of a bad system, to call Judge Woodward's attention to his statement that physicians are quite willing to change a theory or practice in their own profession when experience has proved it erroneous or bad. They certainly do not insist on retaining it on the plea that "we have had it so long, you know."

Stability and permanence are in themselves highly desirable in any legal system. Constant changes in our rules of procedure would result in confusion and uncertainty, a condition of affairs intolerable in legal practice. To assume, on the contrary, that rules of procedure should never change, would give an authority and weight to precedent which ought not to prevail in the face of a proved necessity or desirability for change. Many great changes have already been made in our law.

as, for example, in the law of evidence. Says Professor Robertson in his article on law in the Encyclopedia Britannica: "It (the law of evidence) has been almost wholly transformed by direct legislative enactment, act after act having been passed as occasion pointed out defects in what had already been accomplished." Under proper circumstances, then, in so conservative a land as Great Britain, the rules of evidence have been modified and amended to conform to the changing spirit of the times and the larger development of the national life. It does not appear that these changes, important and radical as they must have been to justify Professor Robertson's phrase "wholly transformed," have resulted in disaster to the British system of jurisprudence. It is possible, therefore, to bring about reformation in the long-established laws of a great state without wreck or wrong. That a change in the present system of selecting and presenting medical expert evidence is desirable, seems to be admitted by some very eminent jurists, although the opinions are not unanimous. Sir James Stephens expresses it as his opinion that the present system is perfect and in need of no change. An echo of this opinion is heard in Judge Woodward's article, in which he says: "I do not believe that the fault is in the system." It will be seen, therefore, that great legal experts differ on important questions of opinion as well as great medical experts, although to read the caustic remarks emanating from the bench, we are led to believe that physicians always disagree, jurists never.

It will be agreed that consistency in the law is just as important and desirable as permanence, yet we do not find either entire consistency or strict logic when we inquire of the law as to what constitutes an expert. Thus, in an opinion before quoted, the judge said of the expert that he should be learned as well as skillful. So, too, Chief Justice Shaw of Massachusetts says: "An expert is a person of large experience in any particular department of art, business or science. . . . It is because a man's professional pursuits—his peculiar skill and knowledge—enable him to draw an inference where men of common experience would be in doubt, that his opinion is admissible." But in Hathaway vs. National Life Insurance Company (48 Vt., p. 335, et seq.), the judge said: "A general practitioner is a competent witness. The law does not require the medical witness to have made a specialty of the subject to testify in relation to the same." It has even been held that a lawyer was a competent medical expert, who, sixteen years before, had attended a course of medical lectures, obtained a license from the state to practice, had practiced for one year, and then abandoned medicine for law, which he had been practicing during the interval. It is doubtful whether this lawyer-doctor or doctor-lawyer, declared by another lawyer as competent to give expert medical evidence, could have even described the circulation of the blood. In ludicrous contrast to this opinion is that of the judge in McEwen vs. Bigelow (40 Mich., 215), in which it was held of a plumber who had been out of business for twenty years, that "this was a long time to be out of a business that must have changed so greatly in that time," and he was held not to be entitled to give expert testimony. The trouble with the plumber, evidently, was that he had not become a lawyer, in which case the views of a sympathetic court might have been those of the California judge just cited. It is not quite clear, says Rogers, whether a man must have been engaged in active practice at all. There is an Alabama decision that it is not necessary. This decision is supported by the opinion of Redfield (Greenfield on Evidence), "but generally nothing more is required to entitle one to give testimony as an expert than that he has been educated in the particular art or profession." Thus a stripling, who has just gained his degree, is put on the same footing, so far as his right to give expert testimony is concerned, with a man of experience and distinguished attainment. The jury is left to decide on the relative weight which is to be given to the opinion of an impudent ignoramus and the learned and skillful expert described in another opinion. As an example of the evils of such a system, the following, which came under the observation of the writer, may serve: A man received a simple fracture of the lower end of the tibia in January, and was discharged from the hospital in February, with the fracture united, but with the slight edema that is usual in such cases after the removal of the plaster-of-paris splint. There was never even any pretense that suppuration had been present, as the fracture was simple. In May, the man contracted a lobar pneumonia, from which he died. His widow brought suit on the ground that the fracture was the cause of the pneumonia. The medical witness for the plaintiff, I will not call him an expert, testified that the pneumonia was of septic origin and due to the fracture. In vain two professors, one of clinical medicine and the other of surgery, testified that this was an impossibility, and that the patient died of a lobar pneumonia which bore no relation whatever to the fracture incurred five months previous. The intelligent jury gave the plaintiff a verdict, which, I am happy to say, was afterward reversed. Such a blunder was rendered possible by the loose and contradictory definitions of what constitutes an expert.

It is perverse logic which declares that a man who has the technical education of three or four years in a medical school is on a par in respect to his ability to give expert evidence with a man of the same education, but added years of experience and observation. Let us apply the same reasoning to the sister profession. On a complicated and doubtful question of law, what weight would the learned author of this remarkable opinion be willing to give a man who had studied law for a term in a law school, then abandoned law for medicine after a brief further experience of a year's practice, and, after sixteen years' interval, sought to be admitted as a legal expert, a veritable Daniel come to judgment? I doubt whether the learned justice would be likely to seek such aid in writing an opinion on a doubtful point. If this appears an absurdity when applied to the law, why is it any the less an absurdity when applied to medicine? Is medicine, then, so simple and law so much more profound, not to speak of the Michigan plumber? To the lay mind, a review of these conflicting decisions brings the conviction that there is too little certainty among the bench and bar as to the qualifications necessary to constitute a witness an expert. Still more anomalous becomes the position of the bench in the light of the following objection, which has been made by an eminent jurist, to the proposal that there should be a state board of experts. He says: "Men eminent in one branch of their profession often have a superficial knowledge of the other branches, so if all questions of medical science had to be referred to a board of government experts, suitors would be practically prohibited from availing themselves of other experts qualified by their special knowledge on that particular subject to form an accurate opinion." Nevertheless, all the deci-

sions cited clearly permit incompetent men to testify, the only qualification apparently being that they shall have a degree in medicine and agree with the theory of the case held by the side that calls them. This is certainly very convenient for the suitors, but whether it is conducive to impartial opinions may well be doubted. Is it strange that a system which starts in confusion should end in chaos?

The function of the expert is very similar to that of the jury. He is usually called on to give an opinion on certain statements of fact generally placed before him in the form of a hypothetical question. Unlike the jury, however, he is not permitted to question these facts nor to pass on them. He is asked to assume their truth, and is then required to give his opinion, his verdict, if you please. Let us for the moment pass from the consideration of the expert to a brief consideration of that bulwark of Anglo-Saxon liberty, the jury, for ages the protector of the rights of the humblest citizen, which also renders an opinion on the facts brought out at the trial of the cause. The jury is a body of twelve men called from all walks of life to listen to the evidence, to give its just value so far as this is possible to finite minds, and render a verdict which shall be just. Courts and advocates, particularly in criminal cases involving the capital penalty and not seldom in important civil cases, spend much time in securing twelve men from a panel of hundreds of citizens who have shown themselves after the most severe cross-examination to be unprejudiced and beyond the possibility of bias. Frequently weeks have been spent in securing a jury, particularly in cases which have excited much public attention. This is a notorious fact, and adds thousands of dollars to the expense of the trial. Let us suppose that a contrary course was pursued, and the district attorney was permitted to name six men whom he had previously interviewed to his satisfacton, and that a similar privilege was given to the counsel for the prisoner to select in similar fashion six other jurymen, on the trial of the case what would be the prospect of an agreement? Fortunately for the administration of justice, our jurymen must still pass through a three-fold sieve before they are sworn in and admitted to the jury box. Before the jury thus carefully selected, each of the contending parties now summons expert witnesses who are to give their opinion on certain facts or alleged facts. It is just as important that they shall be free from bias as the members of the jury, for their function is very similar, yet precisely that manner of selecting them is used which seems monstrous when even mentioned in connection with the jury box. Says Judge Miller of the United States Supreme Court: "Skilled witnesses are required to speak not to facts but to opinions, and it is surprising with what facility their views can be made to correspond with the wishes or interests of those who call them." But why should it be surprising? The lawyers have chosen their witnesses on *ex parte* statements. Also Lord Campbell says: "Skilled witnesses come with such a bias on their minds that hardly any weight should be given to their evidence." Each of these utterances goes right to the heart of the evil, but blames the witnesses and passes by without a word of disapproval the system which is entirely responsible for the fact of bias, which is, after all, the charge against the expert. While opposing counsel are allowed to employ their own experts without restriction—in short, to go shopping until they match the color of their own case—so long will the courts be compelled to endure the evil which their complaints accentuate but will not remove. Can the bench expect that lawyers who are permitted to secure their own experts are going to summon men whose views contravene their wishes or the interests of their clients? The system is as essentially vicious applied to the opinion-testimony of the medical expert as it would be if applied to the jurymen whose verdict is to set the prisoner free or bend his neck under the sharp axe of the law. No doubt it may be replied that such an argument is simply the old excuse of extenuating circumstances. Hardly that. It is not intended as a plea in extenuation. It is a charge of *particeps criminis* against the law which invites the fault and the lawyers who are responsible for the retention of a system which many of them acknowledge to be bad.

Again, it may be said that it ought not to be possible for one lawyer to be able to retain a set of expert witnesses to testify on one side of a case, and for a second lawyer to get a second set of experts to testify on the opposite side. Such a criticism is perfectly just, and is particularly deserved in many of the damage suits which are so common in our courts to-day. There are lawyers known to the bar as ambulance chasers, who have runners constantly on the watch for accident cases, of which they learn through the daily papers. These unscrupulous members of the bar, with the aid of equally unscrupulous members of the medical profession, rob corporations of thousands of dollars every year. I can not say that I see any difference in the culpability, or that the doctor is more blameworthy than his principal, the lawyer, who brings the suit too often built up of manufactured evidence. They are a pair of precious rascals. I seek to excuse neither. It is the system, however, which renders their partnership possible. If the law rendered this evil alliance more difficult, or perhaps impossible, justice would be the gainer as well as the corporations. No amount of scolding from the bench will be effectual. Bad men have never been made to mend the evil of their ways by mere denunciation. They do not fear the fulminations from the bench, provided a sentence to jail does not follow. The householder who kept his silver on his doorstep might denounce the thieves who robbed him of his treasure with the full vigor of an unbridled vocabulary. No one would doubt the sincerity of his wrath, and the police would doubtless catch the rascals if they did not run too fast. The neighbors, however, would come to the conclusion that the wisest plan to prevent the loss of their valuables would be to keep them in a safe. So it is better to amend a system which is known to permit evil, and thereby prevent it, than to continue the system and imagine that anything can be accomplished by denouncing the criminals who are the direct offspring of the system itself.

There is, however, another class of cases in which the issues to be submitted to the medical expert are difficult or doubtful. Such are many will cases in which the testamentary capacity of the decedent is in question, damage suits in which the injury is of an obscure nature and the ultimate result doubtful, borderland cases of insanity, and criminal cases in which perplexing questions of medicolegal jurisprudence are likely to arise. There are no problems in medicine more difficult of determination than those which relate to testamentary capacity. How far may reason wander from the normal and yet the individual be of sound and disposing mind? Eccentricity of itself is not a sufficient reason for pronouncing a man insane, and yet there are

many cases in which it is hard to say exactly what is the limit of eccentricity beyond which lies undoubted insanity, and the inability to make a legal will. There are criminal cases also in which the question of the criminal responsibility of the prisoner, by reason of a disordered intellect, is a matter of doubt. The medical profession can point to cases in this country and England in which insane persons have been punished for crimes committed, which would have been impossible had the individual been in a normal condition. In damage suits there are many cases in which, as a result of a violent shock from accident, the nervous system of the victim becomes deranged so as to make him a confirmed invalid. Confirmed, did I say? It is this very question which is most difficult to answer. Such cases as these are all debatable and likely to be subject to differences of opinion. Here we require not only the highest skill and the longest experience in the expert (yet from the decisions quoted it will be seen that there is no exact definition in the law as to what constitutes an expert), but it is also doubly essential on account of the doubtful or difficult nature of the questions involved that the experts shall approach the case with as little bias as the jury. No amount of invective from the bench will ever change human nature. Let us suppose the case in point to be criminal. The prisoner has been indicted for murder and the district attorney summons medical witnesses to support his contentions. On the other hand, the counsel for the prisoner summons experts before whom the case of the prisoner is laid for the purpose of defense. It is not in human nature that two sets of men engaged to examine the case of the prisoner, from two opposite standpoints, shall not be influenced by their point of view. There is nothing which is supposed to be more exact than the solution of mathematical problems. Nevertheless, astronomers invariably make a certain allowance for errors of observation in their calculations which is denominated the "personal equation." If the personal equation can enter into the abstruse problems of pure mathematics to an extent sufficient to require definite allowance, what value shall we give to the personal equation of two sets of medical experts called to decide a difficult problem in psychology or toxicology, and who view the question from different standpoints? What allowance shall be made for the personal equation when a blunder means not an error in the position of a star, but a life wrongfully taken by the state? It may be urged that bias should have no place in the minds of educated men, and that it ought to be possible for medical experts to consider the problems of medicolegal jurisprudence dispassionately without reference to the side which calls them. The law courts of a country are supposed to be as free from bias as is possible for any human tribunal, nevertheless the electoral commission which sat in the Tilden-Hayes case divided on strictly party lines. Purrington, in an article read before the New York State Association some years ago, quoted the *London Law Times* as follows: "It is curious that politics took sides, perhaps involuntarily, in deciding the case of Flood vs. Allen." In this celebrated case eight judges reversed the opinion of thirteen because the eight had the final decision, or what lawyers sometimes jocularly term "the last guess." Purrington further states that the same periodical cited a speech of Lord Brougham to show that in his recent day the decision of English judges might be predicated from their political leanings. Evidently in the law courts the point of view means much, not that there is the slightest suggestion that conscious bias is ever present. Facts like these, which might be multiplied almost indefinitely, show how difficult it is to get rid of personal equation, whether in the realm of pure mathematics, law or medicine. If the vapors of unconscious bias can drift behind the closed doors of our highest tribunals and cast the dews of prejudice within on the pure lustre of the shield of justice, what can we expect of a system which not only does not provide against the existence of prejudice, but, on the contrary, actually invites it?

The present law first paves the way for the appearance of witnesses as experts who may, nevertheless, be incompetent, then through the manner of their selection by the interested parties renders it almost impossible for them to be without bias, and finally proceeds to elicit their testimony by means calculated to gag the witness at exactly the point where his testimony becomes inconvenient to counsel or dangerous to the client. The hypothetical question, which is the method most frequently used in our courts for the purpose of eliciting the opinion of experts, is calculated rather to confuse the jury than to enlighten them, and frequently involves the serious logical fallacy of the *suppressio veri*. It is evident, if we are to continue to summon our jurors from all ranks of society without reference to previous education or present intelligence, this in itself constitutes a cogent reason why the evidence presented shall be clear and readily understood by even a limited intelligence and the most rudimentary education. There is a case (Haish vs. Payson, 107 Ill., p. 365) in which the hypothetical question covers two and one-half pages of the law reports. Hypothetical questions of less but still formidable length are common. In the Guiteau case, that of the defense comprises over 300 words, and Rogers states that the hypothetical question of the prosecution "is too long to quote." Only last week a hypothetical question was put to one of our ex-Presidents, which took an hour to read. It is true that the question is not addressed to the jury but to a witness; nevertheless, on this answer the jury must pass, and if the question is unintelligible or difficult to follow on the part of the jurymen, how are we to expect that their opinion of an opinion will be of value? The present legal status of the hypothetical question seems to be involved in as many contradictions as the legal view of the qualifications of the expert. Rogers, in his work on expert testimony, says that the hypothetical question is not improper simply because it includes only a part of the facts, and if framed on the assumption of certain facts, counsel may assume the facts in accordance with his theory of them, it not being essential that he should state the facts as they actually are. In Cowley vs. People, 83 N. Y., Judge Folger lays down this dictum and the following comment: "If the facts are in dispute, then there would be no room for the hypothetical question, if the question must state the facts as they exist, since the jury are to determine what are the facts." On the other hand, in Fraser vs. Jennison, 42 Mich., 206, the court said that a question "which assumes a state of facts not warranted by the testimony will not be allowed," and in our own state, in Dillebar vs. Home Life Insurance Company, 87 N. Y., p. 79, the court said that the testimony should tend to establish the facts embraced in the question. Judge Moore of the Supreme Court of Michigan said: "If one fact supposed to be true included in the question is untrue,

then the opinion of the physician would be valueless." It is difficult for the layman to reconcile opinions which seem so contradictory. Judge Folger's opinion seems to mean that a lawyer may propound to the medical expert a hypothetical question which shall state certain unproved facts essential to his theory of the case, but which shall suppress unfavorable facts, and then insist on a categorical answer which may involve an actual suppression of the truth instead of the whole truth which the witness is sworn to reveal.

Judge Woodward's remedy for this state of affairs is an appeal by the witness to the court; nevertheless, it is the experience of the writer that the court has invariably directed the categorical answer, leaving to the re-direct or cross-examination to bring out the whole truth. The trouble with this method is that unless counsel be instructed by witness or an assisting expert as to the fallacy involved, he will let it pass. But it is impossible for a witness to suggest questions to counsel, and the partisanship of a medical expert who is present at the trial for the purpose of assisting counsel is so evident to the jury as to deprive his testimony of any value and casts a shadow on all the expert testimony. A familiar and humorous example of the fallacy a categorical answer may involve is the old query, "Have you left off beating your wife?" Not a few of the hypothetical questions which are directed at the medical expert are designed to involve him in a dilemma which may not be so humorous or obvious, but which is, nevertheless, just as truly a dilemma, on either horn of which he will be impaled. Under Judge Folger's ruling, it would be perfectly possible for two different sets of experts testifying on opposite sides of the same case, to testify nevertheless on totally different statements of facts and be reprimanded by the court for disagreeing and lectured for their sins accordingly. In Davis vs. State, 35 Ind., 496, the same principle is laid down as follows: "After counsel have propounded to an expert a hypothetical question based on the facts assumed to have been proved in accordance with their theory of the case, opposing counsel may propound the same question based on facts assumed on the opposing theory." This leaves the jury to disentangle the truth from the masses of conflicting testimony, a task of which in many cases it is quite incapable. In the face of such a preposterous proposition as this, the medical expert is made the football of the bench, the bar and the press, and we are told that expert evidence is of little if any value. Says Judge Endlich of Pennsylvania (Am. Law Rev. 32, 851): "The vast majority of hypothetical questions does not and never will adequately and impartially present the actual or most probable state of the case," a statement which, in the light of the opinions quoted, seems to be axiomatic and therefore incontrovertible.

The medical profession is weary of being told that the fault is with it; weary of the ready and easy denunciations of the bench and the ill-considered jibes of bar and press. Men of the law, we protest against your system! We protest against its inconsistencies! We protest against it as inviting the chaos you are so fond of condemning! You admit, through the utterances of eminent judges and in the pages of your text-books, that you have no sufficient standard of qualifications. You admit that your system invites instead of preventing bias. You admit that the hypothetical question is not calculated to present all the facts to the expert. Nevertheless, up to the present time, in spite of the protests of the victims of an essentially vicious method; in spite of the reports of committees of your own profession and of joint committees composed of members of both professions concerned; in spite of the opinions of your most noted jurists, you absolutely refuse to change, but content yourselves with denouncing a profession which you wrong. You tell us that we must mend our ways. Judge Woodward, in the article before referred to, states his remedy as follows: "Where a doctor commits perjury, his fellow-doctors are apt to know it. Prompt expulsion from his medical society would tend decidedly to discontinue the imitation of his example." So this is the wonderful remedy which is to reform the evil! The medical society is invited to expel a man for giving opinion-evidence on the ground that his fellow-physicians will be apt to know that he has committed perjury. But how is the medical society going to prove that the opinion of which they complain and with which they do not agree, is not the opinion of the witness, and that he uttered said opinion with the intent to commit perjury? The difficulty with the judge's remedy is in its application. If the medical society attempted to expel a member on any save legal evidence, the judge would, if applied to for an injunction, be compelled to grant one against the use of his own prescription. If the medical society can secure legal evidence, so can the court; yet in another paragraph of the same article, the judge states that it is impossible to convict of perjury because the evidence is opinion-evidence. Rogers ("Expert Testimony") makes the same statement, and yet the judge asks a body of medical men to do what he confesses the courts can not do, although the same evidence of intent would be necessary in both instances. He asks of us impossibilities.

It is said that enlightened public opinion is the greatest destroyer of frauds. Enlightened public opinion, it is true, but it often takes a long time to enlighten. Bear witness, Eddyism, Dowieism, mental healers, osteopaths and kindred frauds in which the public delight! Has public opinion, although adverse to gambling with cards, ever been unfavorable to stock gambling, which is more vicious because more far-reaching in its evil results? Does it denounce the operations of so-called high finance, the stock watering and legerdemain by which stockholders and the public are robbed under the form of law, or, rather, in spite of laws ingeniously evaded by the aid of counsel skilled in the art of legal intrigue? Such remedies as these are nothing but the flimsiest of excuses and an evasion of responsibility on the part of those who are responsible for the perpetuation of the evil. To charge the medical profession with the faults of a system which it deplores, but is powerless to change, is nothing else than an attempt to shift the real responsibility—an effort to make of a self-sacrificing and honorable profession a hedge of defense and a hiding-place. It is always safe to abuse a doctor when he fails to please or does not succeed in accomplishing the impossible.

As a result of constant effort and complaint on the part of the medical profession, some desultory attempts have been made in this state and in Pennsylvania, Massachusetts and Illinois to bring about reform, but so far all efforts to change the system have either been strangled in the legislature or come to an earlier death at the hands of the bar associations of the different states. In New York, this society appointed a committee to co-operate with a similar committee from the bar association, but after dragging on for two or three years,

the committee reported its inability to accomplish anything. In Pennsylvania, the committee's report, prepared by Judge Endlich, was disapproved when it came up in the bar association of that state, although if its recommendations had been carried out it would have put an end to the evil practices for which we are held responsible. It is not the intention of the writer to minimize the difficulties of the problem. Important questions of privilege, questions involving the constitutionality of suggested changes, the essential difficulties of making any change in a long-existing custom, but more especially the difficulty of getting lawyers to relinquish their present right of getting expert evidence where they can, when they can and how they can, all these difficulties we concede. They can not be solved, however, by an attempt to hold the wrong parties. Constitutional amendments have been passed in this state on much less important matters, and if it has been possible to materially change the law of evidence in so conservative a land as England, it ought to be possible to introduce reforms in the legal procedure of this state, which by many jurists of the highest standing are conceded to be necessary. Doctors are not learned in the law, and it is not easy for them to suggest remedies for a system which has inflicted on them so much unjust and unmerited criticism. Indeed, it seems to them that the legal profession ought to be willing to mend its own fences. Up to the present time, however, all that has been done by our brethren of the law is to invite us to expel erring experts from our county societies on illegal evidence, or to extend the provisions of the code of ethics "so as to embrace the conduct of the medical man when he assumes the rôle of expert witness." We respectfully decline to burn our fingers in either of the two ways suggested. To us, as mere laymen, it seems necessary to correct the faults of an antiquated system in order to bring about the much-desired reform.

It seems obvious, if we are to make use of expert testimony, that it should emanate from real and not from pseudo-experts. It ought not to be possible for a lawyer to introduce a recent graduate as an expert in insanity, when the law provides that he can not act as examiner in lunacy until he has been in practice for three years. An interval of five years in active practice after graduation is not too long for the blossom of theory to ripen into the fruit of experience. No student of medicine on graduation is competent to give opinion-evidence in court except in the simplest matters. Let the state require this interval before a doctor is allowed to give opinion-evidence. Such a law would not preclude his testifying on questions of fact. In addition, the state should require at the end of this period an additional examination, under the auspices of the present state boards as conducted by the three schools of medicine, to insure the fitness of the intending expert.

This is a very different proposition from the establishment of a state board of experts, to which objection has so often been made, for it does not confine the litigant to a small number of men selected by the state whose evidence is to have a higher value than that of the non-official witness. In fact, such a witness is not an official witness at all, any more than the physician who has passed his state board examination for a license to practice is an official doctor. Each has been stamped with the bull mark of fitness—nothing more. Examinations for promotion are held in the medical departments of the Army and of the Navy, and there is no good reason why the physician who wishes to testify as an expert should not show his special fitness for a work of such importance to the state and to both professions. For the purpose of providing for the period of transition, exemption from such examinations might be made in the case of men who had been twenty years in practice prior to the passage of the act, and to men in medical schools who hold positions above the rank of instructor; also of the hospital man who has spent at least five years in the service of a hospital of at least fifty beds. Such exceptions as these may be necessary as a temporary expedient only, and in order to provide for the inconveniences involved in any sudden change. The problem of securing an expert witness without bias is more difficult, since under the law every client is protected in his right to offer any evidence which may be material. Consequently, at present he can not be prevented from selecting his own witnesses, whether lay or expert. Nevertheless, just as long as this practice continues in the case of the medical expert, we shall rarely be able, even in the most conscientious witness, to provide against the unconscious bias which may exist on the bench of the highest courts as well as in the minds of the faculty. This it is which is the chief evil in the system. No doubt some improvement may be expected from the erection of a proper and moderate standard of qualification such as has been suggested, but to do this and yet leave untouched the greatest of the evils complained of, would be very ineffectual therapeutics. The most feasible and simplest way of bringing about a change in this respect, although not ideal, is to leave the selection of the experts for both sides in the hands of the judge. In the long run, we should get better results than if the selection of the experts were to be left in the hands of a state body like the New York State Board of Regents. Moreover, I believe it would be much easier to get the consent of the bar to such a change. An objection by Judge Bartlett of the appellate division of the Supreme Court to entrusting the bench with such a function is that a man may be a good judge of law and yet be a very poor judge of doctors, a statement with which those of us will agree who have never had the privilege of treating judicial gout or dyspepsia. As long as there is no standard of qualification, this objection will have much force, but if a judge were compelled to make his choice from men who possessed the qualifications suggested, he could not make any very serious blunder; and while it is true that the very best men would not always be selected by the bench, not as good perhaps as by a state board, yet we should be in a fair way to get unbiased opinions at least and a reasonable degree of competence. Undoubtedly it would also be better for the state to pay the experts a fixed fee, such as was suggested in this state some years ago, the minimum being $10, which is too small, and the maximum $100, this latter fee being for the entire day in court. Such a practice would, however, have the serious objection of increasing the burden of the taxpayers. The alternative to this would be to fix the fee at $100 a day, with a minimum of $25 for any opinion-evidence, however short, and leave the payment of the experts to the suitors, as at present. Even under this plan it would no doubt be possible for a designing lawyer to suggest that while the legal fee was $100, further compensation would be forthcoming if the opinion was favorable to his contentions. I know of no way of providing against such a possibility. We can only approximate, never secure, perfection in this world. Men will continue to be avaricious, untruthful, ready to

do evil rather than good, so long as the sun rises and sets in this sad world. There is no specific for sin except in the new heavens and the new earth, and the man who demands perfection in any system, whether it be of law, theology or medicine before he accepts it, will have to go to his grave unshriven, intestate, with a coroner's certificate as his passport to the tomb.

Finally, in the matter of the hypothetical question, I believe that the medical profession would be glad to see it abolished entirely in accordance with the recommendations of Judge Endlich of Pennsylvania. If it is to be retained it ought to be submitted on an agreed statement of facts. In no other way can it be made use of without confusing the jury and of necessity antagonizing the experts. How can they be expected to agree if they testify on different statements of fact? Much time might be spent in discussing the substitutes for the hypothetical question, but the writer is conscious that there are limits to the forbearance of the most lenient audience. It has been his intention rather to throw into the strongest possible relief the faults of the present system which need correction, than to enter into a critical examination of the many different remedies which have been proposed. After all, in law as in therapeutics, it is better to attack the cause of an evil than to treat symptoms, and the investigators who have discovered the causes of a disease have gone a long way toward preventing it.

This matter concerns two learned professions. On one hand stands the profession of law, the protector of the feeble against the mighty, the safeguard of all government, dispenser of equal justice. On the other stands the medical profession with high ideals of self-sacrifice, high professional standards of right and wrong—the wish to give of their best to individual and public alike. Shall these two great professions stand arrayed against each other on so vital a matter? Must there be no further progress toward reform? Shall we continue to waste our breath and printers' ink in mutual recrimination? The problem is difficult but not impossible of solution, and it must be solved. The profession which boasts a Taney, a Marshall, an Evarts and a Taft, will not always refuse justice to the profession which has given to the world a Jenner, a Koch, a Behring and a Reed.

Original Articles.

CHRONIC ADHESIVE SCLEROSING PERITONITIS, OR PLASTIC PERITONEAL SCLEROSIS.

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The "chronic adhesive sclerosing peritonitis" of the Germans is a rare disease, and, so far as I can determine, has escaped recognition and description in most of our American text-books. One or two articles in the current medical journals of the last ten years describe conditions resembling true chronic adhesive sclerosing peritonitis, but the disease is nowhere accurately described as a distinct pathologic entity. This is all the more remarkable, as it appears to be well known in Germany, Virchow having alluded to it as long ago as 1853, and Riedel has recently considered the subject comprehensively. In the new edition of the "Handbuch der Practischen Chirurgie" by von Bergmann, von Bruns and von Mikulicz (Vol. 3, p. 85), a detailed description of the disease is to be found and the pathologic picture is so closely similar to the findings at the operation and necropsy in the case here reported that ours was readily recognized as one of chronic adhesive sclerosing peritonitis, though none of those who saw the case had ever seen any other and none of the surgeons of large experience who were told of it had any recollection of having encountered one like it.

According to the description in the handbook mentioned, it may occur at one or many points in the peritoneal cavity, but the areas about the female genital organs, the gall bladder, the flexures of the colon, the posterior part of the peritoneum, the root of the mesentery, the mesentery of the sigmoid flexure and the omentum are the points of selection. As a consequence of the chronic inflammation, thickening of the peritoneum results, which leads to shrinking.

It is alluded to as *Narbenbildung-Schrumpfung*, *Adhasionbildung* and adhesive sclerosing peritonitis, the latter name being descriptive of the pathologic picture presented by the disease. It is further stated that chronic adhesive and sclerosing peritonitis may be a sequel of acute infections of the intestines. All parts of the abdomen where circumscribed acute peritonitis often takes place are liable to adhesive processes. Trauma of the abdomen often gives rise to it, as well as operative procedures. The complaint may, however, start in a chronic form and reach a high state of development without an acute stage having preceded and without the patient being able to give a definite cause for its onset. The functions of the large intestine are very much interfered with, through adhesions in the cecum and flexures and mesentery of the sigmoid. Chronic constipation is, therefore, a frequent result of such conditions.

The English terminology of the forms of chronic peritonitis is so involved and the descriptions of the various phases of the disease so vague that the impression is forced on one that proper classification of such diseases as may produce this effect has not yet been made.

Under the term "Proliferative Peritonitis" (on p. 603) in Osler's text-book, a brief description of the condition here considered may be found while the exceptionally exhaustive and able papers of A. G. Nicholls[1] treat of "Chronic Hyperplastic Peritonitis," and Douglas' "Surgical Diseases of the Abdomen" describes a form of fibroid tubercular peritonitis which resembles true chronic adhesive sclerosing peritonitis; and A. J. O. Kelly, in a paper on "Multiple Serositis," makes allusion to like conditions.

The essential characteristic of chronic adhesive sclerosing peritonitis, as described in the handbook I first mentioned and as observed in our case, is extensive subperitoneal fibroid infiltration or scleroses, without ascites and without "serofibrous or fibrino-purulent exudation."

This would seem to demand for the disease a different classification from those pathologic processes which produce the well-known icing liver of Curschmann, and though it may be of tubercular origin, that hypothesis is far from being proved, and it is manifestly improper to confuse it with specific tubercular fibrosis, as described by Douglas.

1. Studies from the Royal Victoria Hospital, Montreal, 1902 and THE JOURNAL A. M. A., March 14, 1903.

Indeed, chronic adhesive sclerosing peritonitis would appear to be primarily not a peritonitis at all, but a distinct affection of the subperitoneal and visceral fibrous or connective tissue, the feature of adhesive peritonitis supervening as a result of traumatism, operation or of transmigration of intestinal bacteria through impairment of the natural resistance of the tissues.

In view of this fact might it not be better for us to agree on a name for the disease which would more closely indicate its characteristics, as is done by the Germans, or perhaps even simplify the title they have given it by calling it plastic peritoneal sclerosis?

This name, through the broad significance of the word sclerosis, suggests chronicity, slight inflammatory action, contraction, and the histologic elements actually involved, while the word plastic indicates the secondary effect of the malady.

THE NARRATION OF THE CASE.

The case here reported was seen with me previous to the first operation by Dr. Leonard Freeman of Denver. He assisted me at the first two operations, and was principal at the third, in which I acted as his assistant. To Dr. Freeman is due the credit of suggesting the possible character of the malady, he having read the article above quoted just prior to the last operation, his surmise being amply verified by this operation and the subsequent necropsy. Drs. J. N. Hall and J. E. Kinney were also valued consultants throughout the later stages of the disease, and Dr. J. A. Wilder examined the tissues and reported the pathologic findings. To all of them I desire to make acknowledgment and offer thanks.

Previous History.—The patient came to Colorado about twelve years ago because of chronic and intractable malaria. She had been married twenty years and borne two children. the last ten years ago. She was 45 years of age, and had never been robust.

Present Trouble.—About seven years before her death she had a free hemoptysis, and for many years she was subject to attacks of vomiting, pain and flatulency,. accompanied and followed by frothy, yeasty and very offensive stools. Her nutrition and digestion were never very good, and during the last two years of her life were poor.

In June, 1902, sixteen months before her death her malnutrition and distress became so profound as to demand interference, and as she presented at this time the classic symptoms of a chronic appendicitis and had a very movable right kidney, it was determined to operate for these and to make an exploration of all the abdominal organs.

First Operation.—An operation was performed June 17, 1902, at St. Luke's Hospital, with the assistance of Dr. Freeman. The vermiform appendix was removed, the right kidney fixed to the parietes and an exploration of the pelvic and abdominal organs made. In making the closure of the abdominal wound, however, a difficulty was encountered, the significance of which was not appreciated at the time, but in the light of subsequent events it assumed a place of great importance, and had we known chronic adhesive sclerosing peritonitis then as now, it would have lead to an immediate, positive diagnosis. This phenomenon was a total inability to approximate the peritoneal surfaces below the muscles, the peritoneum having contracted from the edges of the cut muscles so that it could not be brought together. It did not then give us the impression of being thickened, though could we have observed it with our present knowledge of the disease, we probably would have found it so. No other pathologic conditions were found at this time, sixteen months before death.

This phenomenon must be regarded as pathognomonic of this disease and every effort must be made to cover the wound, as otherwise conditions favorable for the development of the most serious phases of the disease are left, the viscera adhering to the abraded surfaces and giving rise to serious complications, as the sequel in our case demonstrated. If the peritoneal surfaces can not be approximated, a covering of omentum should be made, if, indeed, the disease has left any omentum available.

Result.—The immediate result of this operation was to improve the general health and comfort of the patient. The old diarrhea was arrested and gave place ultimately to constipation. After about a year had elapsed, however, anorexia, nausea, vomiting, constipation, flatulency and finally great rectal pain and tenesmus with reflected pains into the back and legs developed. Examination revealed a mass underlying the upper end of the scar of the old incision, which seemed to involve the pyloric end of the stomach and to be attached to the pancreas. A tight and rigidly undilatable stricture of the rectum was found, one-third of an inch in diameter, three inches from the anus, and the pouch of Douglas was filled with a tumor, three inches in diameter, which seemed to be incorporated with the rectal obstruction. Though the patient was not cachectic, the presumption that the case was cancer seemed so great that this diagnosis was uppermost in our minds, though the hope was held out to the patient and family that it might not prove to be so.

Second Operation.—An immediate operation for the relief of the rectal obstruction was urged, and on Sept. 30, 1903, was done at the Woman's Hospital in Denver. The usual incision for an inguinal colostomy was made, and through this the pelvic and pyloric masses were examined. The pelvic tumor proved to be a solid tumor of the right ovary, three inches in diameter, and was easily tied off and removed, as it was pedunculated, though firmly impacted and wedged in the pelvis. The rectal band was entirely distinct from it. The rectum sigmoid and whole colon were densely packed with hard feces, and the pylorus and intestine were matted together in a huge mass which was very adherent to the old scar. The detachment of these adhesions was impossible. The sigmoid was drawn through a valve-like opening and the usual colotomy made on the fourth day. The feces were washed out from day to day and so the rectal tenesmus was relieved and the comfort of the patient promoted. Again the difficulty of the first operation was encountered in closing the wound. The contraction was much more pronounced than before, and again its true meaning was not understood.

Result.—No infection followed, and in three weeks the patient was up in a chair and doing well, when, after some unusual article of diet, great pain and tenderness, with gaseous distention, developed. No relief could be procured through the fistula, and it became evident that a complete intestinal obstruction had formed above the fistula, and as the whole colon could be distended with water and then emptied it was evident that the small bowel was involved.

Hopeless as the case now appeared, the determination was reached to again operate for the relief of the obstruction.

Third Operation.—Dr. Freeman undertook this last operation, I assisting. The probable nature of the case was now suspected, as the German account of the disease had come to his attention.

A long incision was necessary, and the whole length of the distended small bowel was examined to determine at last that the point of absolute obstruction was near the lower end of the ileum and that it was solidly attached to the underside of the inguinal colostomy incision at the point where the peritoneum could not be made to cover it. This attachment was so firm that the bowel was torn completely across in an effort to separate it, and it was necessary to resect about six inches of intestine and make an anastomosis with a Murphy button. In order to get around the mass of adhesions about the pylorus which involved the stomach, gall bladder, duodenum and pancreas a gastro-enterostomy was done, though with great difficulty, as the stomach was contracted to about the diameter of the large intestine and was enormously thickened so that the shank of the Murphy button was scarcely long enough to reach through and lock, and the

purse-string suture in the stomach wall could not be made to pucker the tissue about it. Much difficulty was again encountered in closing the wound in the peritoneum.

Necropsy.—Fourteen hours after this operation the patient died, and consent for a partial necropsy being procured, the following striking pathologic conditions were found: There was a general shrinking, thickening and contraction of the peritoneum everywhere, but it was most marked in the regions indicated as the favorite sites of the disease, i. e., about the pylorus and gall bladder, the flexures of the colon, the rectum and pelvic organs, the mesentery and the peritoneum covering the posterior wall. There was no ascites and no serofibrous or fibrino-purulent exudation on the peritoneum.

The stomach wall was in places more than half an inch thick and the gall bladder, duodenum, pylorus and pancreas were so matted together as to be quite inextricable. The pancreas was small and so infiltrated with connective tissue growth as to be almost cartilaginous in consistency. At three points the small bowel was so tied down by contraction of its mesentery as to have its lumen greatly interfered with, and the caliber of the rectum at the point of constriction was reduced to a diameter of less than a quarter of an inch, with its walls quite three-fourths of an inch in thickness. A loop of the extreme lower end of the ileum was very firmly attached to the bladder. There was also a firm stricture at the pyloric end of the stomach of only about one-third inch in diameter. The mesentery of the small bowel was rather thickly studded with small miliary nodules, which were apparently not tubercular.

Most curious of all was the condition of the kidneys: The right, which had been fixed at the first operation, being so firmly attached as to make its removal almost impossible, and both the right and left kidneys presenting a condition of cystic degeneration or hydronephrosis due to pressure on the ureters by the shrinking fibrous posterior peritoneum. The liver and spleen were normal, though the superior surface of the liver was adherent to the diaphragm. At the site of each of the former incisions through the peritoneum the viscera were firmly adherent to the cicatrix. The cut surfaces of the thickened stomach and rectal wall were white and glistening and showed an enormous hyperplasia or connective tissue growth. This was also true of the pancreas and the mesentery of the bowel, which was very much thickened and shortened throughout. None but the abdominal organs were examined.

Incidentally, it may be mentioned that for about fifteen years this woman had a peculiarly dry, wrinkled and shrunken skin, with almost a complete arrest of secretion from its glands, coincident with the development of the first abdominal symptoms, which may have been a part of the general pathologic process.

Microscopic Examination.—Dr. Wilder's report is as follows:

The ovarian growth measures 3¼x2½x1½ inches. The surfaces are smooth, lobulated and surrounded by a connective tissue capsule that is firmly adherent to the underlying tissue. The tissue cuts with considerable resistance, has a pinkish, flesh-colored appearance and is firm throughout, no areas of necrosis or caseation being found.

Sections made from different parts, including both periphery and center, had the same general appearance. They consist entirely of connective tissue fibers and cells, in some places the former predominating, in other places the latter. The most notable feature of the cellular material is that it is in all stages of fatty metamorphosis. Blood vessels are present in moderate number, and apparently have normal walls. I am unable to find anything suggestive of ovarian tissue in the specimen examined.

Sections from the stricture of rectum show nothing but a dense mass of adult fibrous tissue. Very little cellular material is seen. The vascular supply is poor, but where present the vessels have well-formed walls. No evidence of degeneration can be found.

Sections from the cardiac end of the stomach show an advanced stage of interstitial gastritis, and an enormous increase of connective tissue is seen, which has deeply penetrated the muscular coat. A marked increase of interstitial tissue is seen between the tubules, which have themselves undergone extensive atrophic changes. Sections taken near the pylorus have a similar appearance. Sections from the pancreas show a marked interstitial pancreatitis, the trabeculæ being greatly thickened and the cells apparently suffering from pressure atrophy. The omentum also shows a marked increase in fibrous tissue, and the lymph nodes enclosed in it show hyperplasia of lymphoid cells, with an increased amount of connective tissue in the trabeculæ.

POINTS OF INTEREST.

The points of greatest interest in connection with this case are:

1. The rareness of the disease.
2. The failure to generally recognize and to fully describe it on this continent, though it has been long and well known abroad.
3. The pathognomonic sign—inability to unite a shrinking peritoneum once divided during the course of an operation, which, so far as I am aware, I am the first to observe and describe.
4. The essential chronicity of the disease, as indicated by the long-standing symptoms, otherwise unexplained, and by the shrinking and retraction of the peritoneum at the first operation, sixteen months prior to her death, which proved the previous existence of the malady, and that it was not directly or indirectly the result of the operation.
5. The great importance of covering all denuded surfaces when before or during an operation chronic adhesive sclerosing peritonitis is diagnosed.
6. The characteristic subperitoneal connective tissue hyperplasia which is the pathologic feature of the disease.
7. The shrinking or contraction of the peritoneum caused by it, the clinical feature.
8. The possible significance of a somewhat similar pathologic process taking place in the skin coincident with unusual gastrointestinal symptoms otherwise unaccounted for.
9. The possible diagnostic value of this syndrome.
10. The danger of serious sequelæ incident to its surgical treatment.

A STUDY OF GOUT.*

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That the pathology of gout has not kept pace with the lines of distinction that have clinically been drawn, is much to be regretted, but we do know that it is the fibrous element which is most affected in chronic rheumatism, the synovial membrane with degeneration later on in the cartilage and bone in arthritis deformans, and the kidneys and blood primarily in gouty affections causing deposits of urates in the joints. If one should say that it was the uric acid in excess in the blood, in the form of urates, that was the cause of gout, he would very rightly be met with the assertion that there were other diseases with excess of urates in the blood and which did not have the manifestations of gout. A similar wrong conclusion would be to attribute the cause of arthritis deformans to micro-organisms, for it is known that the investigators do not agree in the description of these organisms and that they have been

* Read before the Medical and Surgical Society of Washington, D. C.

found in other diseases, and so far inoculation has failed to reproduce the disease in animals. McCrae of Johns Hopkins, in a recent excellent paper on arthritis deformans, says that could we determine a definite organism to be associated with the disease, the matter is settled. In his series of 110 cases of arthritis deformans he has never succeeded in obtaining any results from cultures. In reference to the association with previous gonorrhea, he reaffirms the established fact that the disease is very uncommon among the colored

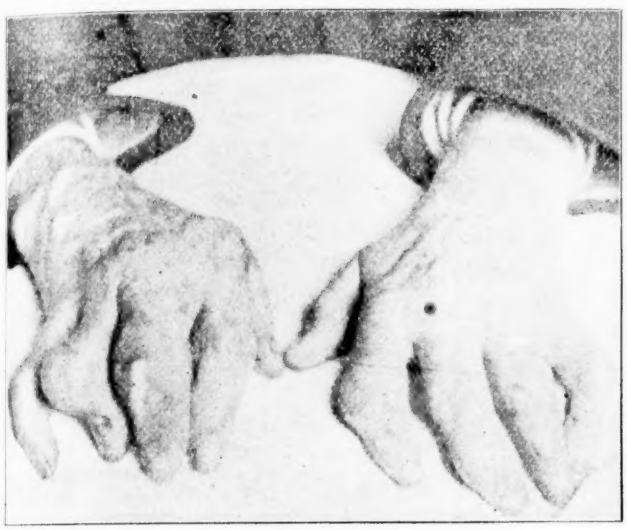

Fig. 1.—Gouty hands.

race, among whom gonorrhea is almost a general occurrence. While the whole question must as yet be left open, he is of the opinion that the evidence seems to point to the infective theory.

The clinical pictures of rheumatism, gout and arthritis deformans are fortunately so often clearly presented that a pathologic consideration of the anatomy of the parts is not necessary. When our vis-a-vis at

Fig. 2.—Radiograph of gouty feet.

cards can chalk down the score with his knuckles, we do not need any further demonstrations to tell us the party is suffering from chronic gout. We have all seen, as Niemeyer writes, such cases where the diagnosis was strongly supported by the experience of the patient. The patients themselves have not only remarked that they could expose themselves to catching cold with impunity, while the return to careless diet and the use of beer and wine always made them worse, but they also observed that anti-rheumatic treatment did not improve their case.

A recent case which is very apropos in this connection had been diagnosed before entering Garfield Hospital as arthritis deformans, and so far as the name goes, it is a case of deformed joints; but when one considers the history and looks at the joints pathologically and fluoroscopically he is impressed with what marked distinctions can be drawn between this case and chronic rheumatism and arthritis deformans. The age, sex and mode of life of the patient are first to be considered. He has tried to get all out of life he could in a short time; has disregarded all sensible and rational ways of conserving his bodily vigor and has choked and engorged his system with the products of faulty metabolisms, and has burnt the candle early and late at both ends. His kidneys, as nearly all these cases show, are considerably hardened, and this process of connective tissue sclerosis extends to other organs besides the blood vessels and heart. Outside of the tophi being absent from the ears and eyelids, the case is peculiarly characteristic with its large deposits on tarsophalangeal and carpophalangeal joints, with also enormous incrustations around the olecranons. What clinched the opinion in this case outside of the fluoroscopic view, which showed permanency to light of the deposits in contradistinction to the darkened areas in arthritis deformans, were the finding of the crystals of urate of soda in the joints. A comparison of the radiographs of the normal joint and those of gout and of arthritis deformans (taken through the courtesy of Walter Merrill, M.D.), will show the difference in deformity and destruction that goes on in these diseases.

It might be said in gout that the deposits *per se* do not destroy the joint or articulation, but bring about deformity or disarticulation from the pressure of the increasing deposits in and around the joint. In chronic rheumatism of the severest type, "we are often astonished how little in appearance the joint may be altered" (Osler), whereas, in arthritis deformans, a most extensive destruction of cartilage and bone, with marked deformity, often follows.

In considering gout there are many diseases that simulate it as regards the affections of the joints. The sex, age, habits and inheritance, as I have said, will often separate the case from chronic rheumatism, arthritis deformans, gonorrheal or tubercular arthritis, Charcot's tabetic knee, or that of syringomyelia and other arthropathies of neuropathic origin. Garrod found that "in 500 cases of arthritis deformans, 411 were in women"; others give the percentage as high as 85, and in women who had passed the menopause, with no antecedent history of intemperance, indolence or luxury. Monro, in the same disease, has noted that "the hands suffer more than the feet," and symmetry is often characteristic; that the knee, shoulder, hip, hands and spinal column, etc., are apt to be attacked in the order named. In the 110 cases which have been tabulated from Dr. Osler's wards by Dr. McCrae, he does not find great disproportion between the sexes; also he remarks that the affection, he believes, is not so symmetrical as the writers are very fond of emphasizing. He lays stress on the contrast between the alcoholic history in gout and arthritis deformans, and the striking disparity between the involvement he found of the fingers and of the toes—the great toe being affected in only 6 cases of this large series of arthritis deformans.

We find that in 95 per cent. of cases of gout, the disease originated in the metatarsophalangeal joint; that fermented liquors with a full stomach have been the shibboleth of the sufferer, and that a good proportion of cases have to thank their sires for vitiated diathesis of gout. Dr. Darwin, an English physician of great note, affirms that he never saw a case of gout where the person did not drink freely of fermented liquors. such as beer and wine.

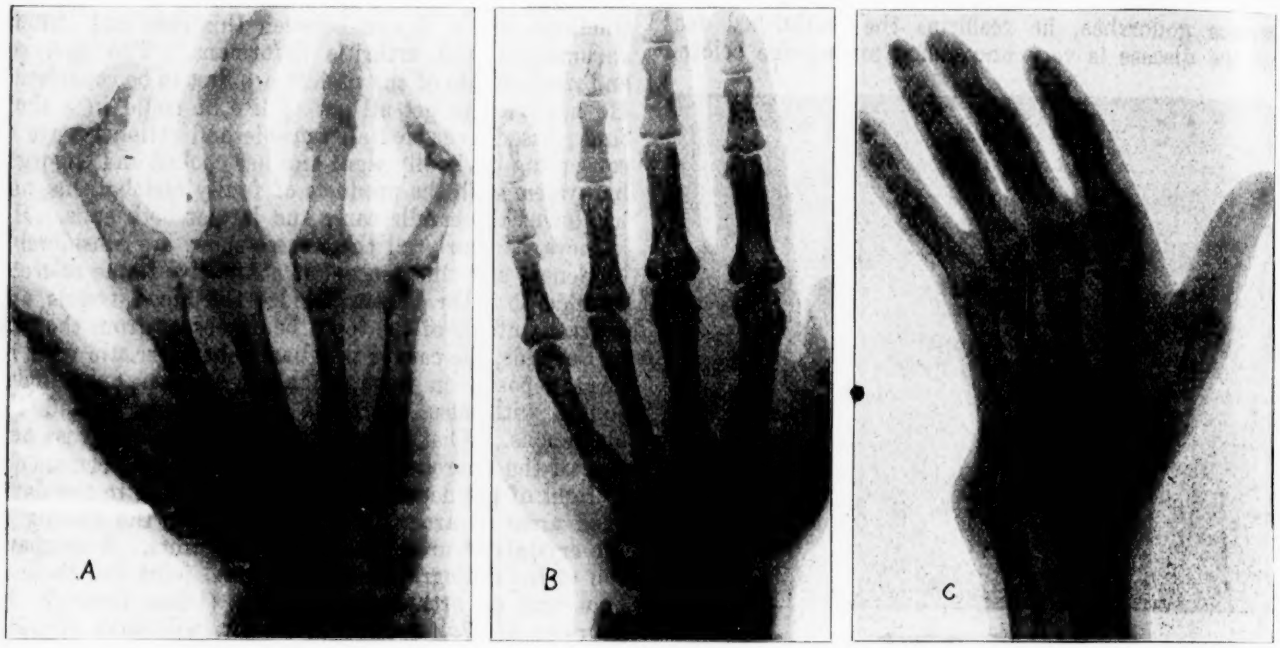

Fig. 3.—Radiograph of (A) gouty, (B) normal and (C) arthritis deformans hands.

Heberden's nodes, which are described by most authors—some considering them rheumatic, others gouty—are small rounded growths arising principally from the phalanges of the fingers, and produce considerable deformity of the joints, without, as a rule, exciting much pain. They contain no mineral constituents, but are made up principally of fibrous tissue, and are found mostly, as Lyman says, in elderly women. Heberden believes that they have no connection with gout, being found in persons who never had it; whereas, the gouty, crab-eyed indurations are rough and uneven and are composed of urates. Levison of Copenhagen draws a marked difference between gout and arthritis deformans. Gout has a strong hereditary predisposition (77 per cent.); it occurs more in the males, and in those who have used beer or strong wine. Workers in lead have a decided tendency (33 per cent.), and dyspeptic and renal colic often precede the acute attacks of gout. The urine is often found deficient in urea, and uric acid and hyaline and granular casts are not unusual. Tophi are found on the ears, eyelids and joints. The Roentgen photographs of the foot or hand show the clear lines between the bones, and even the large deposits of urate of soda are quite invisible. In arthritis deformans the articulation affected by the disease, even if it be not developed far enough to cause stiffness or enlargement of the joint, has lost its clear, transparent appearance and is almost black in color.

To draw a line sharply between acute gout and rheumatism is often very difficult, especially if the gouty pains occur simultaneously in many joints and are associated with considerable pyrexia. A consideration of the habits and occupation of the individual, the sex and age, the estimation and comparison of the urea, uric and phosphoric acids output, as suggested by Fitcher, and the test as recommended by Garrod for uric acid in the blood, may be of great value. The higher temperature curve, with the drenching acid sweats, is in marked contrast to the rather low or afebrile temperature, with a greater and more frequent tendency to fluctuation between great agony and absolute well-being. Aretæus has known the Olympian race to be won by those who were in the throes of gout the night before.

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A STUDY OF A CASE OF GREEN URINE,

RESULTING FROM THE ADMINISTRATION OF METHYLENE BLUE IN A PROPRIETARY REMEDY.

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While cases of green urine are by no means unknown, the circumstances surrounding a recent case are so much out of the ordinary that they will interest the general practitioner. On the other hand, the report will not be without scientific interest and value, since one of the foremost American text-books on diagnosis, in speaking of this condition, dismisses the subject with the statement that, "while green urines have been described, the cause of the color has not been definitely ascertained."

THE CASE REPORTED.

On Dec. 1, 1903, there was submitted to me for examination about 120 c.c. of urine of a bright grass-green color, and possessing a peculiar aromatic odor, not unlike that of oil of juniper or wintergreen. The patient was a woman, 76 years of age, who had been for a long time troubled with sciatic rheumatism, for which she had tried numerous remedies, but with little permanent beneficial effect. She first noticed the passage of colored urine on the morning of November 27, the day after she had begun taking some pink-colored pills known as "Magic Regulators," which had been sent to her as a sample by a patent medicine concern located at Jackson, Mich. With the pills were directions to take one before each meal, followed by a glass of hot water; and there was also enclosed a circular reading as follows:

"A simple test: To prove the action of our 'Magic Regulators' on the kidneys, the organs which in rheumatism are always diseased and fail to do their work, allowing the poisonous acids to accumulate and lay the foundation for a long and painful run of rheumatism, watch the color of the urine voided. If it assumes a light-blue or greenish color, you may rest assured that the 'Magic Regulators' are doing their work."

In all, 14 of the pills were taken, as directed, and during this time the patient continued to pass urine of practically the same color as the sample submitted for examination. During this time the patient's diet consisted largely of bread, butter, milk, tea, meat, and potatoes. The vessel into which the urine was voided was clean, as was also the bottle in which the urine was sent for examination.

THE LITERATURE OF GREEN URINE.

Instances in which green urines have been passed have been known from very early times. A comparatively large number of cases are to be found reported, particularly in French literature. Within the last few years several papers on this subject have appeared in Scottish and English journals, but American literature seems to be singularly lacking in this regard.

Braconnot[1] describes two cases of blue urine, from which the color could be removed by filtration. Hassall[2] states that the above blue color was due to the presence of particles of indigo deposited in decomposing urine. Hughes[3] reports a case in which blue urine was passed from the bladder. Garrod[4] records a case of a child passing green urine after sucking a cloth dyed with indigo. Fletcher[5] reports a case of blue urine being passed after methylene blue had been taken unintentionally. Good[6] reports a case in which the blue color was diagnosed as indigo, although the patient was shown to have taken methylene blue.

Dr F. Parkes Weber,[7] in an article entitled "The Occurrence of Green or Blue Urine and Its Most Frequent Cause," describes several cases in which green or blue urines were passed, and gives a detailed account of the various tests by which methylene blue can be recognized in the urine, noting especially the differences in the reaction of an ordinary solution of methylene blue and a solution of methylene blue in urine.

Stockman[8] reports two cases in which blue or green urine was passed, and which on examination was found to be due to methylene blue, which in one case had been given to the patient as a practical joke, in the form of pilules densely coated with pink-colored sugar. For purposes of comparison, the urine of a third person was examined after two grains of methylene blue had been administered intentionally. Stockman states that the reactions given by the urine varied even in the cases in which methylene blue was known to have been administered. In the first case, when the fresh green urine was shaken with chloroform or amyl alcohol a blue color was extracted, leaving the urine a deep yellow, and he explains the green color of the urine as being due to the mixture of these two colors. At times the urine passed by this patient was dark blue, and at other times bright green. Stockman concludes that when methylene blue is taken internally a blue and a green pigment, probably a yellow pigment, and probably also a colorless chromogen appear in the urine, and that these yield reactions and spectra which are slightly different. In Stockman's second case, the patient, who was suffering from a cystitis, passed one specimen of greenish urine. The coloring matter was insoluble in chloroform, amyl alcohol, ether and benzol, and was decolorized by liquor potassii. He is unable to state either the source or the nature of the pigment.

Dun and Douglas[9] report what they state to be probably the first recorded case in which methylene blue was made use of to delude the patient into a belief in the efficacy of the remedy administered. In this case the remedy was taken for chronic rheumatoid arthritis by a lady 65 years of age, being administered in the form of capsules, sent to her as samples by an American concern. The patient was instructed to observe the urine for evidence of the fact that the remedy was taking effect, it being stated that the urine would come to be of a decided bluish tint. A sample of the urine was examined by Dr. Douglas, who decided that the coloration was due to methylene blue, which had been added to the patient's medicine in small amounts. None of the capsules could be obtained for examination. The urine was of a fine, deep, transparent green, with a slight bluish tinge, and possessed the odor of anise. It decomposed more slowly than usual, remaining free from disagreeable odor, at room temperature, for over a week. The results of a number of tests are given, which make it practically certain that the pigment was methylene blue.

EXAMINATION OF THE URINE.

The sample examined in this case consisted of about 120 c.c. of a particularly brilliant grass-green color, with the peculiar aromatic odor above described. It was slightly acid and had a specific gravity of 1020. Portions exposed to the air for some days did not change color, and underwent decomposition very slowly. One ounce was poured into a sterile bottle, and has been kept at room temperature for three weeks and is still slightly acid, and without any marked odor of decomposition. Portions to which were added mixed cultures of colon and typhoid bacilli and various other germs obtained from water, were decolorized after being kept for several days at room temperature, but the green color could be restored on shaking the tube. The pigment was found to be insoluble in ether; and on treating the urine with both dilute and strong hydrochloric acid, no change in color was observed, even on boiling. A few drops of a 10 per cent. solution of sodium hydroxid decolorized the urine, the green color being restored on neutralization with hydrochloric acid. Ether failed to take up the pigment, however, at all stages of this reaction. The urine was unchanged in color on boiling, but filtering slightly decreased its intensity, owing to some of the pigment being taken up by the paper. Both chloroform and amyl alcohol, when shaken with the urine, removed the green color completely, leaving a bright golden yellow. On evaporating the chloroform and amyl alcohol solutions of the pigment to dryness over the water bath, a greenish substance was obtained, which, on treatment with strong sulphuric acid, became brown and brownish yellow, and on dilution, at first greenish and finally was decolorized.

About 25 c.c. of the urine was then evaporated to dryness over the water bath. As the pigment dried it

1. Ann. de Chimie et de Physique, 1825, xxix, p. 252.
2. Trans. Royal Soc., Lond., 1854, p. 144.
3. Guy's Hosp. Rep., Lond., 1856, vol. ii, 3d series, p. 56.
4. Trans. Clin. Soc., Lond., 1895, xxviii, pp. 307-309.
5. Trans. Clin. Soc., Lond., 1899, xxxii, and Brit. Med. Jour., 1899, i, 1686.
6. Lancet, Lond., 1901, i, 1535, and ii, 647.
7. Lancet, Lond., 1901, ii, 774.
8. Edinburgh Med. Jour., 1902, liv, 115.
9. Scot. Med. and Surg. Jour., xiii, 142, 1903.

changed in color from green to light brown, but on washing with alcohol the green color was restored, and the pigment passed into solution. The residue was washed several times with alcohol, and the washings carefully evaporated to dryness at about 60 degrees. A portion of the solid pigment obtained on evaporating the alcoholic extract was treated with strong sulphuric acid, which changed it to a brown color and decolorized it on dilution. A dilute water solution of methylene blue when evaporated to dryness and treated in the same way, gave a similar reaction. The remainder of the green pigment obtained from the alcoholic extract was taken up with water, in which it was readily soluble. This water solution was of a deep bluish green color, similar to the original urine, but slightly darker, it being more concentrated.

Portions of the original urine and of the aqueous solution of the pigment obtained as above were then treated with a few drops of Weingärtner's reagent (tannin, 25 g.; sodium acetate, 25 g., and water, 250 c.c.), which precipitates basic anilin dyes. A fine green precipitate was obtained in both instances, the filtrate from the urine being of a bright golden yellow, similar to highly colored urine, and that from the aqueous solution of the pigment being clear. This reagent, therefore, completely removes the pigment from its solution in water and urine, and indicates it to be a basic anilin dye. The precipitate in both instances dissolves readily in alcohol, giving to it a light bluish-green color. The reactions given by the aqueous solution of the dye obtained as above were similar to those given by the urine itself.

Moderately dilute solutions of the pigment extracted from the urine with amyl alcohol, and of methylene blue in amyl alcohol, when examined with the spectroscope, showed in both cases a single, well-defined band in the red at a considerable distance from the sodium line. The urine also, when examined with the spectroscope, showed this same absorption band, but less markedly.

EXAMINATION OF THE REMEDY TAKEN.

A sample box of the pills, similar to those taken by the patient, was obtained. They were bright pinkish red, and weighed about 3 grains each. On removing the firm outer coating, all but one were found to be made up of a dark bluish-green substance, which, when pulverized, dissolved readily in water, alcohol and amyl alcohol—completely on boiling—and giving to these solvents a deep blue color. The remaining pill contained a grayish-yellow substance, which burned readily, leaving a small quantity of grayish ash.

The content of one of the first-mentioned pills was dissolved in about 500 c.c. of distilled water. Treated with Weingärtner's reagent, this solution gave a blue-black precipitate and a slightly yellowish filtrate. On treatment with concentrated hydrochloric acid no change was observed. Sodium hydroxid decolorized the solution to a pinkish violet on standing. A solution of chemically pure methylene blue made to the same color as the pill solution, gave exactly the same reactions. The aqueous solution of the dye obtained from the pill, when treated with strong ammonia, became green on heating. The methylene blue solution, when treated in the same manner, was unchanged. Potassium bichromate changed both solutions to a light wine red.

Chloroform removed the color completely from the pill solution, holding it as a light blue. The color was also removed in the same way from the solution of methylene blue, but was almost immediately changed to a yellow. A solution of methylene blue, to which a small amount of chemically pure methyl green had been added, was then treated in the same way. The color was completely taken up by the chloroform and held as a light blue, of the same shade as that obtained from the pill solution, the methyl green having evidently prevented the methylene blue from being decolorized. Chloroform took up the color from a solution of methyl green, but soon decolorized it, the liquid above being colored a wine red. The same solutions were shaken with ether, but without change in any case.

A piece of the solid dye from the pill was treated with concentrated sulphuric acid in a porcelain capsule. The color was changed to a bright grass green, with a yellowish tinge, becoming blue, and finally blue violet on dilution. Solid methylene blue, treated in the same way, gave a bright green, becoming blue and then blue violet on dilution. Solid methyl green gave a dark orange red to carmine, on dilution becoming brown, then olive green, then blue green, and blue.

The solution of the pill and the solution of methylene blue, when treated with picric acid and glycerin, gave a blue-black precipitate and a bluish-green filtrate, of exactly the same shade in both cases. The spectroscopic appearance of the pill solution corresponded exactly to that described above for the solution of methylene blue.

Strips of cotton cloth were then dyed in the solution of the pill, in the solution of methylene blue, and in a solution of methyl violet of approximately the same strength, for the purpose of comparison. After having been allowed to dry in the air over night, the following tests were applied and results obtained as recorded below. The strip dyed in the methylene blue solution was of exactly the same shade as that dyed in the solution of the pill.

TABLE OF COMPARATIVE TESTS.

Treated with.	Pill Solution.	Methylene Blue.	Methyl Violet.
HCl.	Fiber nearly decolorized; liquid blue green.	Fiber nearly decolorized; liquid blue green.	Fiber brownish yellow; liquid amber yellow; violet not restored on dilution.
H_2SO_4.	Fiber and liquid green.	Fiber and liquid green.	Fiber and liquid brownish yellow.
NaOH.	Fiber changed to blue violet.	Fiber changed to blue violet.	Fiber changed to pale reddish violet.
NH_4OH.	Fiber not much changed; somewhat paler.	Fiber not changed.	Fiber changed to red violet; then almost decolorized.
HNO_3.	Green spot.	Green spot.	Green spot surrounded by a bright yellow ring.
Alcohol.	Greenish blue color extracted.	Greenish blue color extracted.	Violet color extracted.

It will be noticed that, as a whole, the tests of the aqueous solution of the material obtained from the pill correspond closely to those given by the aqueous solution of methylene blue, made to the same color. The solid dye treated with sulphuric acid gave a reaction corresponding almost exactly to that of chemically pure methylene blue. There was at first a slight yellowish tinge, resembling the first reaction of malachite or benzaldehyd green, although the end reaction was the same as that of methylene blue. The solid dye obtained by evaporating the various solutions of the pigment, both from the pill and the urine, when treated with strong sulphuric acid, did not give the characteristic bright green color, changing to blue and violet on dilution, given by solid methylene blue; but it was noted that when solutions of pure methylene blue were evaporated to dryness, the residue also failed to respond to this

test in the characteristic manner, but behaved the same as the residue from the pill and urine.

The reaction of the pill solution with chloroform is exactly similar to the chloroform reaction of a solution of methylene blue, to which a small amount of methyl green had been added. The possibility of the pill containing small amounts of an anilin green was therefore considered. The dye contained in the pill is entirely soluble in amyl alcohol, and is completely removed from its aqueous solution by this reagent. Amyl alcohol also completely removes it from the urine. It does not change to violet in any of its solutions on heating to 100 degrees C., and consequently, neither the pill nor the urine contains methyl green or its allies, these being insoluble in amyl alcohol, and changing to methyl violet on heating to 100 degrees C. The aqueous solution of the pigment obtained from the urine corresponds very closely in its reactions to the aqueous solution of the pill, the small differences noted being probably due to the presence of urinary salts and coloring matters in the first solution. The spectroscopic examination of the various solutions of the pigment and the reactions to various reagents of the fibers dyed in the same, are both positive for methylene blue. There is, therefore, little doubt that the pills which this patient ingested consisted entirely of a somewhat impure preparation of methylene blue, the impurities consisting very probably of small amounts of basic anilin greens, either malachite or helvetia green.

In regard to the pill which was found to be made up of the yellowish vegetable substance and which can not be told by the external appearance from the pills containing the dye, little can be said, nor is its composition of any great importance in connection with this paper. It is probable that the patient received a larger number of these pills than would be indicated by their proportion in the sample box examined by the writer, that is, that the box examined did not contain a representative sample of the remedy. The pills last described evidently contained the true "remedy," if such it may be called, and were undoubtedly possessed of a mild cathartic action, since the patient states that the remedy had this effect.

A study of the literature shows that blue or green urine is occasionally passed by apparently healthy individuals—especially by children—without there being obtainable any history of the ingestion of an anilin dye. Practitioners unfamiliar with the appearance of methylene blue urine are apt to attribute the urinary pigment to the presence of indigo blue, derived from indican fermentation. Practically all cases, however, of green or blue urine reported in the literature have been due to the ingestion of some anilin dye—in most cases methylene blue. Especially is this the case in those instances in which the patient has complained of no other untoward symptom save the pigmented urine. Cases in children almost invariably result from eating candies highly colored with anilin compounds. Since undertaking this investigation, I have been told of a case in which a child passed a bright red fluorescing urine after having eaten candy colored with eosin.

The question may be raised, why was the urine green in this case, rather than blue? Various workers have shown, however, that the urine is frequently green after a dose of methylene blue, especially the first voided after taking the dye. It was noticed in this case that the urine, after the pigment was removed, was of a bright yellow, and it is not unlikely that this combined with what would otherwise have been a bluish tinge to give rise to the peculiarly brilliant green of this specimen.

In regard to the cause of the aromatic odor of the urine, and of its marked keeping power, nothing definite was ascertained.

COMMENTS ON THE CASE.

The present case is of especial interest from a practical standpoint, inasmuch as it brings to light what seems to be a new method employed by the quack to delude his patient into the belief that the so-called remedy is in reality reaching the kidneys and exerting its remedial effect on them. That this is the sole reason for administering the dye, is evidenced by the fact that the pills containing the substance supposed to be a vegetable purgative are of exactly the same external appearance as those containing the dye.

It is significant that in the case reported by Dun and Douglas, the patient sent to an American firm for a "cure" for chronic rheumatism, and that the urine passed possessed remarkable keeping powers and a peculiar aromatic odor, facts which were both especially noticeable in this case. The directions accompanying the remedy were practically the same as in the present case, and in both instances the medicine was sent as a sample.

It is probable that many cases of blue and green urine will follow the indiscriminate distribution of the above-described "remedy," and will be brought to the notice of physicians, particularly those of southern Michigan and neighboring states. In such cases it will be well to bear in mind the fact that both green and blue urines in nearly every case result from the ingestion of some anilin dye—particularly methylene blue—and to inquire whether the patient has recently taken any proprietary medicine.

A REPORT OF TEN CASES OF PNEUMOTHORAX OCCURRING IN PULMONARY TUBERCULOSIS.

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FT. STANTON, N. M.

Pneumothorax as an accident in or complication of pulmonary tuberculosis, occurs usually in but a small percentage of cases. According to West this percentage is 5. Eichhorst found 5 per cent in 390 cases, Gutmann, 4.2 per cent in 2,200, while Weil found 10 per cent in 355 cases. It has been the universal experience that pneumothorax is usually total, that is, that the entire lung collapses and contracts up against the spinal column, thus separating the visceral and parietal pleuræ by a considerable air space, and that partial pneumothorax in which but a part of the lung collapses, and the rest remains in place, due to adhesions or other causes, and but a portion of the pleuræ separate to form a cavity, is much less common. Powell and Whitney state that the total form is the rule, and in Weil's series of 36 cases all but four were of this type. Whitney states in the "20th Century Practice of Medicine," that in partial pneumothorax the symptoms are usually mild, very little general disturbance or discomfort being caused.

Out of 41 deaths occurring at the U. S. Public Health and Marine Hospital Service Sanatorium for Tuberculosis at Fort Stanton during the nine months from Sept. 1, 1902, to May 31, 1903, 9, or 22 per cent., revealed

the presence of pneumothorax at autopsy, and at time of writing there is a case of total pneumothorax of the right side still living, but in a very exhausted condition. This makes 10 cases in all during the last 9 months, and of these 5 were total and 5 were partial.

Four of the partial cases ended fatally as the direct result of the accident. In the fifth the lesion was unsuspected during life and was found at autopsy. It had evidently existed for some considerable time. Four of the total cases terminated fatally and one, as previously stated, is still living, but in a very weakened condition.

This large percentage of cases of pneumothorax, which is far in excess of the general rule, the large percentage of partial cases, and the fatality of the partial as well as the total cases, have caused me to consider the series of general interest and their brief report desirable.

CASES.

CASE 1.—Aged 25 years, admitted June 23, 1902. Both lungs were found involved as shown by dulness, moist râles, friction sounds, and bronchial breathing. After admission his cough, expectoration, and dyspnea were much lessened. His night-sweats ceased and he gained in weight. The progress of the disease seemed arrested. September 16, two months and twenty-four days after arrival, while walking leisurely a few feet from his tent, he was suddenly seized with a severe pain over the cardiac region and urgent dyspnea. His face became ashy and he showed cyanosis. Beads of perspiration stood out on his forehead.

Examination.—The right side of the thorax was found more prominent than the left, and the intercostal depressions obliterated. On auscultation distant bronchial breathing was heard over the right and large bubbling râles and loud grating friction sounds over the left lung. His condition was continually aggravated by annoying fits of coughing, and he died an hour and a half later from shock.

Autopsy revealed a total pneumothorax of the right side. The right lung was collapsed and contracted up against the spinal column and near its apex was an ulcerated opening 2 mm. in diameter, which connected almost directly with a bronchiole. Tubercles were scattered throughout the lung. The pleural cavity was filled with air and contained a trace of purulent fluid. The left lung was adherent to the thoracic wall throughout, and contained a small cavity in the apex and tubercles scattered throughout both lobes.

CASE 2.—Aged 38 years, admitted Oct. 29, 1900. Both lungs were found considerably involved. Shortly after arrival his cough and dyspnea improved and his night-sweats ceased. September 16, 1902, 1 year, 10 months and 18 days after arrival, he had a pulmonary hemorrhage of five fluid ounces. At midnight September 17 he was found dyspneic, with a rapid small compressible pulse. He stated the condition had been coming on for six hours. The condition continued, he became cyanotic, and died September 19, apparently of asphyxia.

Autopsy.—The base of the left lung was found retracted, and the pleural cavity contained air at this point, thus creating a space the size of an orange, which contained a very small amount of serous fluid. No opening through the pleura was found. Both lungs contained tuberculous lesions throughout.

CASE 3.—Aged 27 years, admitted Oct. 4, 1901. Both lungs were found extensively involved. For the next few months he seemed to improve. September 4, 1902, his condition was found to have become complicated by a nephritis as evidenced by edema of the face and limbs and the presence of albumin and casts in his urine. His nephritic symptoms became gradually worse and more distressing. During the night of Oct. 5, 1902, one year after arrival, he was found lying on his right side dyspneic and cyanotic with a rapid weak pulse. He complained of something having broken in his right side. His right chest was seen to be bulging. He died of shock an hour and ten minutes later.

Autopsy.—The right half of the thorax was found prominent and hyperresonant. On section the right pleural cavity was found filled with air and its lung collapsed against the spine, except at the apex and base, where it was held by firm adhesions. This lung had a cavity 5 cm. in diameter in the apex and tubercles and areas of infiltration scattered throughout. The heart was drawn considerably to the left. On the right side the upper lobe was adherent to the thoracic wall and contained a large cavity. The lower lobe was studded with tubercles.

CASE 4.—Aged 44 years, admitted Sept. 29, 1902. Both lungs were affected throughout. October 8, 9 days after arrival, while sitting quietly on the hospital porch he suddenly became dyspneic, and complained of pain in the left side.

Examination.—The left side of the thorax was found prominent, the intercostal spaces effaced, the respiratory movements hardly noticeable, tactile fremitus absent, the percussion note hyperresonant over the normal lung area, precordia and to the costal margin below; the breath sounds were feeble, distant and bronchial, with an amphoric ring and accompanied by moist amphoric clicks, gurgles and rhonchi. The heart sounds were indistinct on the left, but well heard to the right of the sternum. On the right the respiratory movements were exaggerated. He at first occupied the right lateral decubitus, but on the second day changed to the left. For the next three weeks he improved, although his pulse remained weak. Then he grew gradually weaker and died November 20, one month and twelve days after the onset, of exhaustion.

Autopsy.—On opening the left pleural cavity air escaped with a hiss. The left lung was carnified and compressed against the spine. The pleural cavity was half filled with a greenish-yellow purulent fluid, the heart was drawn to the right and the diaphragm on the left bulged into the abdominal cavity. Both lungs were studded with tubercles throughout and contained infiltrated areas in the apices.

CASE 5.—Aged 50 years, admitted Nov. 27, 1902, complaining of cough, copious expectoration, considerable loss in weight, weakness, dyspnea and insomnia. He stated that the dyspnea came on suddenly about six weeks before while aboard his ship and that it was accompanied by pain in the left side and general distress.

Examination.—Emaciation, cyanosis, mucous membranes pale, skin dry and inelastic, and all the symptoms of a complete pyopneumothorax of the left side were present. The succussion splash and *bruit d'airain* were both demonstrated.

Over the right lung the percussion note was dull anteriorly from apex to nipple, crackling râles and rhonchi were heard throughout, and bronchial breathing over the upper lobe. The pulse was small and frequent. His hemoglobin percentage was 70, as found by Tallquist's method. December 2 he had an aggravation of the dyspnea and general distress. For the next five days he was delirious most of the time, and died December 7.

Autopsy.—The postmortem showed edema of extremities, ulcers in ileum and appendix, contracted kidneys, and increase of connective tissue in liver, spleen and kidneys. The diaphragm on the left extended down to the ninth rib in the nipple line and to the tenth rib in the anterior axillary line. On opening the left pleural cavity air escaped with a hissing sound. The lung was collapsed and carnified up against the spine. The pleural cavity contained 1,000 c.c. of greenish yellow purulent fluid. On section a small cavity was found in the apex of the lung. The right lung was adherent to the thoracic wall by many strong adhesions; the upper lobe was almost entirely consolidated and the two lower lobes were studded with tubercles and infiltrated areas. The heart was drawn to the right. It was dilated and filled with currant jelly clots. The mitral valves were sclerotic, contracted and incompetent.

CASE 6.—Aged 29 years, admitted July 6, 1902. Both lungs were extensively involved, especially the left. He developed a fistula in ano, which was operated on with chloroform anesthesia Sept. 25, 1902. Jan. 6, 1903, he was seized with sudden severe pain in the left chest and complained that something seemed to have given way on that side. He was dyspneic, pulse was quick, weak and frequent. He was suffering from shock. He then improved for a few days and felt better, especially when sitting up in bed.

Examination.—The left costal margin was more prominent than the right. Vocal fremitus was diminished over the left lung. The epigastrium was tender on palpation. On auscultation amphoric breathing was heard over the left apex and down to the second intercostal space. From the second intercostal space to the nipple were bronchial breathing and crackling and musical râles and friction sounds. From nipple to base there were fair-sized moist râles and the breathing was bronchovesicular. Vocal resonance was present over all parts of left lung. A to-and-fro shuffling murmur was heard at the cardiac apex. Pulse was small and of low tension. January 21, he was again seized with a sudden intense pain in the left axilla, accompanied by dyspnea, shock and unconsciousness. The respiration became slow and labored, the pulse was rapid and weak. He occupied the left lateral decubitus. There was absence of respiratory movement over the left lung. The patient became cyanotic and died 45 minutes later of shock.

Autopsy.—The left pleural cavity was found about one-third filled with air. The left lung was collapsed in the middle, but held firmly at the base and apex by adhesions. The pleural cavity, in addition to air, contained a small amount of serous fluid. The lung on section contained a small cavity in each lobe. The right pleuræ were adherent over the greater part of their surface and the right lung was studded with tubercles. On removing the heart the visceral and parietal pericardia were so extensively adherent to each other that they seemed to form a part of the heart wall, leaving thus no pericardial sack at all. The abdomen contained a small amount of a serofibrinous fluid. The liver was nutmeg in appearance and Glisson's capsule was adherent to the diaphragm. The spleen and kidneys showed passive congestion and the loops of the small intestine were adherent to each other.

CASE 7.—Aged 37 years, admitted June 2, 1902.

Examination.—This showed considerable involvement of both lungs, and tuberculous ulcers in the larynx. His urine gave the diazo-reaction. He had daily evening pyrexia, with a subnormal morning temperature. During his stay at the sanatorium he had a persistent, troublesome diarrhea, and during the last three months was troubled with emesis. He died Feb. 24, 1903.

Autopsy.—A large cavity was found in the upper lobe of the left lung, and tuberculous infiltration throughout the lower lobe. On the right side the two layers of pleura, the visceral and parietal, were adherent to each other over their entire surface except for an area about 10 cm. in diameter located laterally near the lung apex. At this point the two layers of pleura formed the wall of a cavity the size of an orange. The cavity was filled with pus, and opening into it was an ulcerated perforation 5 mm. in diameter, which connected with a bronchiole. On section the lung was found to contain many small cavities and scattered areas of infiltration. The liver was large, pale and adherent to the diaphragm and parietal peritoneum. The lower jejunum, ileum and cecum contained many tuberculous ulcers.

CASE 8.—Aged 32 years, admitted Aug. 19, 1902. Examination showed involvement of an advanced stage in both lungs. During the next few months his general condition improved very considerably. His cough and expectoration became much less. He gained 8 pounds in weight, and was doing so well that his ultimate recovery was expected. March 14, 1903, while walking, he was seized with an attack of dyspnea. He was put immediately to bed and had another similar attack that same evening. For the next few days he continued somewhat dyspneic and cyanotic, with a rapid, weak pulse and some pain on the left side in the region of the nipple.

Examination.—Large moist râles and friction sounds were heard over both lungs. He became gradually weaker, and died March 23, 1903.

Autopsy.—It was found that the lower lobe of the left lung had contracted, forming an air space the size of patient's fist at the base of the left pleural cavity just above the diaphragm. The cavity contained no fluid. The lung was bound to the thoracic wall by many firm adhesions, increasing in number and strength from base to apex. In the apex was found a consolidated mass of firm scar tissue the size of a small apple. Tubercles were scattered throughout both lobes. On the right side the lung was held firmly adherent by old pleuritic adhesions over its entire surface. The upper lobe contained many band-like masses of firm fibrous tissue. The lung contained tubercles scattered throughout. In the heart both ventricles were filled with white clot, and the arch of the aorta contained a few sclerotic patches.

CASE 9.—Aged 49 years, admitted Sept. 2, 1902, giving a history of severe cough, copious expectoration, marked dyspnea, and presence of tubercle bacilli in sputum. There was slight dulness in right apex, fine moist râles in both upper lobes and cogwheel respiration over both lungs. His arteries showed considerable sclerosis. During the next few months he appeared to be improving, as far as his pulmonary condition was concerned, but had several epileptic seizures of the grand mal type, and in addition developed a tenderness on pressure and pain on movement over the second and third lumbar vertebræ, which latter was relieved only by wearing a plaster jacket. March 11, 1903, he complained of a severe pain at the right costal margin in the nipple line. This was accompanied by increased dyspnea. On the following day he again complained of a still more severe pain, but this time located at and above the right nipple.

Examination.—Auscultation over this area revealed large bubbling râles and a to-and-fro rush of air as through a small opening. The acute symptoms, which had been violent, subsided, but the patient became gradually weaker, and died March 28.

Autopsy.—The patient showed emaciation. The heart was filled with mixed red and white clots. The right lung was adherent to the thoracic wall throughout except at the base and over the middle third, where the lung was collapsed, thus forming two cavities of irregular shape, each of which contained about 500 cubic cm. of space. These two cavities were filled with pus and connected by a sinuous canal. The upper one connected with a bronchiole by an opening 1 cm. in diameter. On section the lung itself was found to contain a few tubercles scattered throughout the two upper lobes, whereas on the left the lung seemed free from tuberculous changes.

CASE 10.—Aged 25 years, admitted Feb. 6, 1903, very weak and in an advanced stage of pulmonary phthisis, both lungs being involved in their entirety and with excavation in their apices. He had chills, night sweats and remittent pyrexia. Then for a few weeks he seemed to improve. He grew stronger, and felt better generally. During the night of April 16 he was seized with a severe pain in the region of the right nipple. He was dyspneic, cyanotic, and had a rapid, weak pulse. His voice was husky and whispering. He lay on the left side.

Examination.—The right side of the thorax was prominent, and the intercostal spaces effaced. Vocal fremitus was all but absent, and over this side there was a full hyperresonant percussion note extending from the third rib to considerably below the normal upper border of liver dulness. The liver could be felt extending two finger breadths below the right costal margin in the nipple line. The heart was displaced to the left. The *bruit d'airain* was present on combined auscultation and percussion. April 19 the patient was very dyspneic and complained of a feeling of tightness on the right side. Fluid was detected by the percussion note and succussion splash, and 500 c.c. were aspirated and the side strapped. This gave him comparative comfort for several days. During May he had three attacks of hemoptysis, and another one on June 6. At present he is in a very weakened condition, which is rendered so precarious by the small amount of serviceable lung left that an early fatal termination seems inevitable.

SUMMARY.

Etiology.—Of the above series 5 had been at the sanatorium for from 2 months and 24 days to 1 year, 10 months and 19 days, and were doing so well prior to the

onset of the pneumothorax that they were considered as rapidly approaching the time when they could be considered arrested cases. Leaving out the case of partial pneumothorax discovered postmortem, and the total case which existed at the time of arrival here, and whose exact time and manner of onset are unknown, the accident occurred at a time when the patient was not exerting himself, with the possible exception of the epileptic, who had frequent severe paroxysms of coughing. In each case the accident occurred at a time of comparative rest. Five of the attacks occurred during the night when the patient was in bed, two occurred while leisurely walking, and one while sitting quietly on a shaded porch. In 9 of the cases there was advanced pulmonary disease, and in but 1, the epileptic, was the lung involvement at an early stage. In all cases the extent of the pneumothorax depended on the strength, location and extent of the pleuritic adhesions if present. In the cases of total collapse of the lungs there were either no signs of adhesions or the torn remains showed that they had been few and weak. The extent and location of the partial pneumothoraces depended entirely on the adhesions and not on the site of the perforation. Perforations were not found through old adhesions, nor through the walls of large cavities, but occurred where the adhesions were young and friable or more commonly absent. Air having gained entrance between the two layers of the pleura, the lung collapsed at that point where the adhesion between the visceral and parietal pleuræ was least, namely, where there were either no adhesions at all and the only resistance to be overcome was the negative pressure of the pleural cavity, or else where there were only such adhesions as could be easily torn.

Morbid Anatomy.—Of the 10 cases, as previously stated, 5 were total and 5 partial pneumothorax; 5 were on the left and 5 on the right side. Of the partial cases 2 were at the base, 2 were about midway between apex and base, and 1 consisted of two cavities, 1 at the base and 1 midway between apex and base. Eight of the cases had fluid in the cavity. In 5 it was purulent, in 2 serous and in 1 serofibrinous, the character of the effusion depending on the exciting organisms and the nature of the pleurisy set up. In the cases of total collapse of the lung, and to a lesser degree in the partial, the heart was found drawn toward the sound side, but not rotated appreciably; the diaphragm on the affected side was much lower than normal, and in the cases where the intrathoracic pressure was great, due either to a valvular conformation of the lung perforation or its closure, and the subsequent collection of effusion in the pleural cavity, it bulged downward with its convexity in the abdomen. The liver descended with the diaphragm and was in right-sided cases found extending from one to several finger breadths below the right costal margin.

Symptoms.—The symptoms of onset in the above cases were very similar, and consisted of an initial intense sharp pain on the affected side, accompanied by urgent dyspnea, general distress, cyanosis, and a rapid, weak pulse. The pain was in 5 cases referred to the nipple region, in 1 to the axilla, and in 1 at first to the costal margin in the nipple line, but later to the nipple, while in 1 case no pain was complained of at all. The three latter were in cases of partial pneumothorax. The voice was in most cases affected, being weakened and of a whispering character. The patient in one or two cases felt a distinct breaking as of something giving way in the thorax. As a rule, when first seen after the accident, the patient lay on the sound side, but after a few days when the initial pain had subsided he invariably changed and rested on the affected side.

Contrary to the prevailing opinion and experience that the symptoms of partial pneumothorax are mild and the accident not of serious moment to the patient, our five cases of the above series were as serious and fatal as the total form. Disregarding the one case which was not discovered during life, the subjective symptoms were just as severe and the general distress, dyspnea, cyanosis and shock just as marked in the partial as in the total.

The physical signs differed, depending on whether the pneumothorax was partial or total, and, if partial, on its extent and location. In total collapse of the lung the signs were those invariably found. The affected side was enlarged and the intercostal spaces more or less effaced; the shoulder usually elevated; much diminished respiratory movement, or its entire absence over that side, whereas the sound side made more forcible movements than normally due to the extra work thrown on it. When the lesion was on the left side, the cardiac apex pulsation was absent, and a marked epigastric pulsation present. When the lesion was on the right, the apex beat was found moved to the left. Percussion over the affected side gave a hyperresonant or a truly tympanitic note extending in all directions beyond the normal lung boundaries. Auscultation gave different results, depending on the size and nature, whether open, closed or valvular, of the pleural perforation. Immediately after the accident there was usually heard a distant tubular to-and-fro rush of air which had a decided amphoric tone. Mingled with this were usually heard amphoric tinkling and bubbling râles. Soon after the occurrence of total pneumothorax fluid invariably began to collect in the cavity, due either to fluid escaping from the lung through the perforation or to a pleuritis, or to both, the former causing the latter. After the first two or three days following the onset the acute symptoms of pain and the general distress subsided and the patients felt quite comfortable, aside from the dyspnea.

Prognosis.—The prognosis at this sanatorium has certainly been very unfavorable, all the cases dying as a direct result of the accident, excepting the two previously mentioned, one of which was partial and discovered at autopsy, and the other total, but expected to end fatally at any moment. Of the cases, 3 died from shock, 2 in a little over an hour after the onset, and the third after 15 days, from what seemed a giving way of adhesions and the enlarging of an already partial collapse of the lungs; 2 died of asphyxia, 1 in three, and 1 in nine days, and 3 died from exhaustion in from 17 days to 7 weeks. The cases of partial pneumothorax lived from 3 to 17 days, and the total cases from 1 hour and 10 minutes, to the duration of the case still living at an interval of over two months from the onset.

Conclusions.—From our experience of the last nine months it would seem that pneumothorax is a more common accident here than elsewhere, and that the prognosis is less hopeful. If this be so we would naturally look to the altitude of 6,150 feet as a possible explanation, inasmuch as it requires more air to be respired to oxygenate the blood, and consequently a greater amount of lung or a greater activity of the same amount as would be needed in less elevated regions, and therefore any great disturbance of the respiratory tract such as

occurs in pneumothorax is not well borne. But the drawing of conclusions as to why so large a percentage of the deaths at this place have been due to this cause must be deferred until more cases and a larger series can be reviewed.

I desire to thank Dr. P. M. Carrington, at whose instigation this report was written, for placing at my disposal the records of the sanatorium.

HEADACHE FROM NON-SUPPURATIVE INFLAMMATION OF THE ACCESSORY SINUSES OF THE NOSE.

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Attention has recently been called to headache from disturbance of air pressure in the accessory sinuses of the nose. This disturbance, not so rare as might be supposed, produces all the symptoms of an empyema, except the discharge. The cause of this condition is stated by one author as being "from air pressure in the sinus." It seems to me, however, to be produced by a diminution of air pressure in the sinus. This diminution in pressure is caused by obstruction to the ingress of air to the particular sinus by closure of its natural orifice. For instance, the middle turbinal may be swollen from inflammation; the swollen body obstructs the sinus so that the cavity is shut off from the nasal chambers. The imprisoned air loses its oxygen from absorption by the blood vessels in the mucous membrane of the cavity. As a result of this absorption, the pressure on the mucous membrane is lessened by rarefication of the air contained in the cavity. This causes a swelling of the mucous membrane in the sinus. If the opening becomes patent, the condition subsides, but in cases where the opening remains closed for some time, the cavity is encroached on, 1, by swelling the mucous membrane; 2, by the pouring out into the cavity of lymph, and 3, by the engorgement of the mucous membrane itself by lymph.

The same condition exists here as in non-suppurative inflammation of the ear, caused by occlusion of the eustachian tube. The symptoms vary according to the time the sinus remains closed. The case may present intermittent symptoms from the occasional opening of the sinus by the contraction of the tissues of the middle turbinate. The usual objective signs of empyema are absent. There is no mucopurulent discharge and transillumination gives a negative result.

CASE 1.—Mrs. F. J. S. This patient has a nose that appears normal in condition save that there is a hypertrophy of the anterior end of the middle turbinate. She complains of almost constant intense pain between the eyes. It has lasted now for two weeks. She had a similar attack one year ago, which followed "a cold in the head," and was at that time treated by her oculist, who dropped medicine in her eyes and gave her prisms for the relief of exophoria. She subsequently was under the care of an osteopath who treated her till the symptoms subsided. The former attack lasted about three months, until the weather became warmer. At present she complains of photophobia and pain on pressure over the inner angle of the eye. There is no discharge in the nostril, but the middle turbinate is large, red, swollen and slightly myxomatous. Applications of cocain and adrenalin contracted the tissues of the middle turbinate so that a small pledget of cotton could be pressed under it. The turbinate was painted with glycerin and iodin, and the patient experienced relief in an hour after the application. Five treatments, given during a week, resulted in a complete cessation of symptoms. There has been no recurrence of the symptoms since, six months after treatment.

CASE 2.—Mrs. A. W. K. had antrum disease 3 years ago and was treated by irrigation through the natural orifice daily for six months, when a cure was effected. There has been no discharge since that time. The present trouble dates from about two months ago. The patient is very nervous, has flushing of the face which lasts about 18 to 24 hours and which is followed by headache which settles over the right antrum. The headaches are similar to those she had while she had antrum disease. Transillumination test shows both sides very clear and of equal brilliancy. The nose is high and narrow. The right middle turbinate hangs well out into the nostril and extends down to the upper edge of the lower one. There is some hypertrophy, most marked on the outer side of the body, toward the hiatus semilunaris. The tissue is red and swollen. It is impossible to pass a probe with a small pledget of cotton under the body without using force. After shrinking the membrane with cocain and adrenalin, the opening of the cavity of the antrum was painted with an astringent pigment and the patient was not seen for two days to note the effect. On the third day she was seen again and said that the pain had disappeared in an hour or two after the first treatment, and that relief lasted 24 hours. Subsequent treatments corroborated these facts. No permanent effect being obtained, at the end of two weeks the anterior end of the middle turbinate was cut away and was followed by absolute and prompt relief.

These cases represent a class of headaches heretofore overlooked, and in one of them the advice of a competent rhinologist was sought, who said it was only imaginary or due to some little cold. It is thus attempted to show that we have non-suppurative inflammations of the accessory sinuses of the nose, as well as in other portions of the body, and that it is possible to relieve such cases by the treatment of the tissues which are the cause of the trouble. Attention to the middle turbinated body is becoming more imperative, as it is the key to the most important part of the nostril.

100 State Street.

HOSPITAL EXPERIENCE NECESSARY FOR LICENSURE—A SUGGESTION IN MEDICAL EDUCATION.

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Much has been written on medical education, and the better medical schools are trying to raise the standard by requiring more in the way of general education before allowing one to matriculate, and a more thorough knowledge of medicine, both theoretical and practical, before granting a diploma. The civil authorities in the different states are more or less active in the same line, one state after another in the past few years having made it illegal for a person to practice medicine before he has, ostensibly, shown his fitness for the work, by passing the examination of the licensing board.

These facts show, in brief, that: (1) The standard of educational equipment of the average physician is so low that those best fitted to judge are far from satisfied with it, and (2) these are anxious to improve the present state of affairs. We must admit, however, that the present methods of raising the standard are inadequate, and that the prospects for improvement are not so bright as we would have them.

The requirement of a collegiate degree before admission to a medical school is greatly to be desired, but it will be many years before this will be done by any but a very few of the best schools. State board examinations, though very unsatisfactory and inadequate, are undoubtedly of great benefit, and are a step in the right direction, but are only a short step on what will prove to be a long journey if we follow the same road.

To give an example of the inadequacy of which I speak, let me mention the case of a young man who, after receiving his diploma from a small, almost unheard-of medical school, took the examination of a state board, whose requirements are said to be among the highest. While being "quizzed" by another man who was taking the same examinations, he was asked something about syringomyelia. The young physician hesitated, he evidently knew nothing about it, and then he explained his ignorance by saying that he had seen the name in his text-book, he thought, but that, when they were studying the text-book—not medicine, mind you, but the text-book—they had skipped that subject with several others. He made this statement with the utmost candor, and it probably never occurred to him that there was any difference between the study of medicine and the study of a text-book on the subject. Nevertheless, this man, who evidently had no conception of what a medical education ought to be, passed the examination, was granted a license, and was thus turned loose on the community. This is merely a single case, but undoubtedly there are, every year, many men no better qualified than the one above referred to presenting themselves before examining boards, who, nevertheless, under the present laws in most states, are compelled to grant them licenses to practice, merely because they have passed their theoretical examinations.

The object of the state board of examiners is to prevent men without the necessary requirements from practicing medicine, but in many cases it lamentably fails, even though the requirements of the particular state board may be far above the average. Admitting this to be the case, is there any other practical way of remedying the evil? It seems to me that there is, but, unfortunately, it does not lie in the power of the medical profession, but in that of the legislative authorities, whose duty it is to see that the men whom they pronounce worthy to take in their hands the lives of their fellow beings (for whose benefit and protection they are supposed to enact laws) are worthy of and fitted for the trust.

The method I wish to suggest is this: That the state, in addition to requiring that the applicant pass the state board examination, shall require the applicant to have had at least one year's hospital work before his license is given him. By hospital work I mean that which is afforded by the position of interne in a good hospital. At first sight this may seem impracticable, but it is not likely that it would prove so. It may be said that there are not enough of such hospital positions for every graduate in medicine to obtain one. With the present number of annual graduates this may be true, but it is a well-known fact that the supply of physicians is far in advance of the demand, and if the supply were cut down to meet the demands there would in all probability be positions for all.

Such a legislative provision would be all the more desirable from the fact that it would not only greatly aid in cutting down this far too-plentiful supply and thus aid in reducing so much commercial competition, but, what is better, it would cut off its least capable and desirable portion, for it is well known that the better men in a graduating class, in the better schools, can get hospital positions, though sometimes they may have to wait for a year or so before going on duty; and not only that they can get them, but that, as a rule, they are not satisfied until they do, and do not consider themselves fitted to practice medicine till they have profited by the practical experience which such positions afford. It is, as a general rule, the least capable and most unfit men in any class who are willing to start out in private practice without getting hospital experience—though, of course, there are exceptions to this rule. Undoubtedly such a law would work hardships and injustice in certain cases, but that it would be of the greatest good to the greatest number, which ought to be the fundamental principle in all legislation, there can be no doubt whatsoever.

Possibly it may be said that this suggestion with regard to medical legislation is too Utopian to be practicable in this country. It has not proved so in others, and why should the medical profession in this country be behind that of others in their standards and ideals? In time some such step must be taken, and why is not the time now ripe for it? The only hope of progress is in having high standards and ideals. Let us do all we can to elevate them!

THE PLASTIC SURGERY IN THE UNIVERSITY MATERNITY FOR THE YEAR 1903.*

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The propriety of repairing the posterior vaginal wall and the pelvic floor after labor by an immediate or intermediate operation is universally conceded. It is curious, therefore, that the other injuries of the genital canal in labor are ignored by the majority of general practitioners and specialists, although they are almost as common and have consequences quite as serious as the so-called "lacerations of the perineum." Indeed, when one considers the indubitable relationship of lacerated cervix to cancer of that region and the discomfort of a cystocele, it is questionable if injuries of the pelvic floor are not of subordinate importance among the three varieties of traumatism to which the genital canal is subjected in labor.

It must appear illogical to the unprejudiced observer to admit that injuries of the pelvic floor should be repaired without fail in the puerperium, but that the other injuries of childbirth, equally disadvantageous to the patient, just as amenable to reparative treatment, may be neglected. I became impressed with the unimpeachable logic of this view some three or more years ago. After desultory attempts at first to apply it in practice, the principle was finally unreservedly adopted. For more than two years not an injury or a pathologic consequence of labor has been allowed to remain uncorrected in the University Maternity. Pelvic inflammations, displacements of the uterus, diastasis of the recti muscles, nephroptosis, injury of the coccyx, inflammations and injuries of the pelvic joints, pelvic and abdominal tumors and diseases complicating childbirth, all receive their appropriate treatment.

It is, however, the purpose of this paper to direct particular attention to our experience and results in the primary and intermediate repair of the cervix and of the anterior vaginal wall, regions which have been strangely neglected not only by physicians in general, but by experts in charge of our large maternities.

THE CERVIX.

During the past year the cervix has been repaired in 53 puerperal patients.[1] The result has been perfectly good in every case. All of these operations were performed after the fifth day, usually at the end of the first week. Previous experience had taught us that an operation on the cervix before the fifth day was too often followed by infection of the endometrium and fever. At the end of a week this is not the case. We postpone, therefore, the repair of the injuries of childbirth for a week, if the cervix is involved. The patient is put on an operating table, and all of her injuries are repaired by a formal operation under anesthesia. I do this in private as well as in hospital practice and with equally good results.

THE ANTERIOR VAGINAL WALL.

Any one who routinely examines the anterior vaginal wall after labor by pressing a forefinger upward in the

* Read before the Philadelphia County Medical Society.

1. The cervix was lacerated in 27.8 per cent. of the women delivered; the anterior vaginal wall in 22 per cent., the perineum and pelvic floor in 38.7 per cent.

sulci toward the pubic bone, will be surprised at first to find how frequently the fascia and muscle of the urogenital trigonum are torn through. This is the first step in the pathologic process that ends in a cystocele. The laceration is usually submucous, but whether it is or not, it is as easily and effectually repaired as the analogous injury in the posterior sulci. The operative technic by which this result is secured has been described in another place.[2] The anterior vaginal wall has been repaired in 42 patients during the past year, in each instance with a perfect restoration of its muscular and ligamentous support. We have, I firmly believe, prevented this number of cystoceles which would otherwise have developed in the future.

We may claim, I think, with this record to have demonstrated that all the injuries of childbirth can be successfully repaired during the puerperal convalescence. It is pertinent to inquire, therefore, what valid excuse can be offered for the common practice of neglecting two-thirds of the lacerations of childbirth, while one-third, it is admitted, must be attended to. Why should a woman after labor be only partly patched up? Why should any woman be condemned to years of disability and invalidism as the result of childbirth, and finally be subjected to a secondary operation, when she could be restored to a perfect physical condition during the lying-in period? This is a question which we should seriously consider ourselves before it is forced on us from the outside.

There is no reason at all why this work should not be properly performed in the maternity hospitals of the country. Any institution of the kind not equipped for pelvic and abdominal surgery and not provided with a staff competent to give the patients the attention so many of them require, should obviously either be reformed or suppressed. In private practice, it must be conceded, there are difficulties to overcome, but these difficulties are not insuperable. In the first place, the slipshod methods of the past must give place to a more modern technic. It is impossible either to diagnosticate or to treat the injuries of childbirth properly with the woman across the bed in the first few minutes after delivery, or even, as a recent text-book recommends, before the expulsion of the placenta. The patient should be put on a table with the legs supported as in any other thorough gynecologic examination or vaginal operation. A specialist will have a good portable operating table and a corps of assistants, but any general practitioner can secure a kitchen table and can provide himself with portable leg supports. The only assistant he absolutely requires is an anesthetizer. The necessary instrumental equipment is so simple that it is within any one's means. The aseptic technic necessary for the patient's safety must be familiar to any one fit to practice obstetrics at all.

It has been argued that the adequate repair of the injuries of childbirth would be too much trouble, would not be sufficiently remunerated, would not be tolerated by many patients, and is, therefore, impracticable. The same arguments could be urged against almost any advance in medicine, and if valid, would stop all progress. It is true that some physicians who practice obstetrics to-day could not successfully repair any of the injuries of childbirth, but this will not be true of the immediate future. No medical student leaves the University of Pennsylvania who has not served as assistant in several operations to repair all of the injuries of parturition, and no doubt the other medical colleges in the first rank are giving their students equal advantages. It is exhilarating to think what this improved training can accomplish in preventive medicine. If every woman were given the attention she ought to receive after childbirth, three-fourths of the diseases of women would disappear.

[2] Text-book on Obstetrics, fourth edition, and Text-book on Diseases of Women.

Clinical Reports.

FOUR CASES OF INTERCURRENT ERYSIPELAS IN MELANCHOLIA.

WITH RAPID RECOVERY OR GREAT IMPROVEMENT IN EACH CASE.*

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Introduction.—Recoveries from the acute psychoses as given by different authorities vary all the way from 50 to 80 per cent. The course of treatment in the great majority of these cases is necessarily prolonged, requiring from three to twelve months' time, and calls for the utmost patience and perseverance on the part of the family, the physician and the nurse. However, it occasionally transpires that some intercurrent disease or some unforeseen agency interferes to cut short an attack of mental disease and we have known instances where factors, otherwise considered etiologic, have been responsible for a sudden favorable turn in the disease. The shock following surgical operations has in many predisposed individuals produced insanity. Typhoid fever and other exhausting diseases also play their part in bringing about a state of mental derangement. In some instances shock alone, traumatic, surgical or emotional, is responsible for the development of a favorable mental reaction, while in others toxins circulating in the blood or the reaction due to a febrile movement may be the cause. This so-called reactionary process is the principle applied in thyroid therapy, frequently used in the treatment of some forms of insanity. Thus it is evident that some agencies usually considered causative may also prove curative under certain conditions.

I present the histories of four cases in which this reactionary process was brought about by infection with the streptococcus of erysipelas. All were cases of acute melancholia with profound depression and symptoms promising a protracted course.

CASE 1.—A man, 42 years of age, American, married, lumber merchant, gave no history of excesses in any line, but was of a highly neurotic temperament. He had always enjoyed good health and strength aside from an attack of appendicitis about ten years previously. At that time an abscess formed and ruptured into the bowel and left a more or less chronic gastric disturbance. Early in the fall of 1902 he received quite an emotional shock by the sudden death of a 4-year-old daughter, to whom he was very much attached. There soon followed nervous indigestion, insomnia and loss of weight. Then ideas of self-depreciation and marked hypochondriacal obsessions and finally an uncontrollable agitation developed. This patient first came under observation Nov. 12, 1902. At this time a full examination was rendered impossible because of his agitation and his refusal to answer questions intelligently. There was marked insomnia, very little appetite, the tongue was covered with a heavy, dry, yellowish coating and the bowels were constipated. The deep reflexes were all much exaggerated, yet there was no evidence of organic disease. The picture was one of agitated melancholia, with anxious expression, hesitating and disconnected speech, marked confusion of ideas and great impairment of volition. He was unable to dress or feed himself, and passed most of the time walking about his room, fearing that food or water taken into his stomach would produce appendicitis, and frequently asserting that he knew death was impending. November 15

* Read before the Milwaukee Medical Society.

it was noted that he had been growing more agitated and resistive. At this time he gave expression to well-defined delusions of persecution, refusing food from fear of poisoning, would not undress at night because he knew that his enemies would come in and carry him off to the torture chamber, consequently his sleep was much broken. All his symptoms grew more pronounced until he seldom spoke, would do nothing for himself, and required to be fed with the stomach tube. November 21 patient awakened with a well-defined facial erysipelas, beginning on the right side of his face just in front of the ear and in the external canal of the left ear, from which came a seropurulent discharge. At this time the axillary temperature was 100, pulse 95, while there was a slight improvement in his mental condition, so that he took food freely. During the next week the infection spread entirely over his face. The fever remained around 103 F., and at one time reached 105 axillary. Pulse and respiration were rapid. During the height of the fever he was mildly delirious at times, but for the most part exhibited a clearness of ideas and a freedom from depression witnessed at no previous time during his illness. He took nourishment well and extended his co-operation in every respect. There was no return of the temperature twelve days after the erysipelas first appeared, and seventeen days from the time the infection manifested itself he was dressed and walking about his room, partaking heartily of solid food, while his sleep and other physical habits were normal.

The most interesting feature of this case was the disappearance of the depression and all other mental symptoms as the fever subsided, so that in fourteen days he passed from a condition of profound and progressive depression, utter confusion of mind and well-defined delusions to one of clear perception, buoyancy of spirits and freedom from delusions. Improvement was uninterrupted, and there was no return of any mental irregularity, and on Jan. 5, 1903, seven weeks after admission, patient was discharged in prime physical health and mentally sound, aside from an unnatural degree of buoyancy.

CASE 2.—A man, 64 years of age, with unusually good hereditary influences, married, the father of five healthy children, and a well-to-do farmer, reported having been in excellent health of body and mind for the past thirty-four years. When 30 years of age he had an attack of neurasthenia, lasting only a few weeks. Early in November, 1902, patient began to "feel out of sorts" and complain of fatigue, nervousness and broken sleep. He rapidly grew worse, so that on Jan. 7, 1903, when admitted to the sanitarium, he was very depressed, talked but little, was very restless and uneasy, walking the floor most of the time while awake, rubbing and wringing his hands, saying he was not ill but was suffering for his sins. His delusions related to his unworthiness, loss of property, imaginary poverty, and utter hopelessness of anything being done for him. His physical condition was quite reduced, sleep very broken, appetite poor, but organic changes were absent, aside from considerable arterial thickening. I was called to see this patient early one morning six days after admission. He was profoundly depressed, refusing food, and an erysipelatous rash was spreading over his face. Temperature was 105, pulse 140. During the next four days the temperature ranged from 102 to 104, pulse from 85 to 110. At this time he began showing less opposition to treatment and took nourishment more freely. He also answered questions more promptly and rationally. Eight days after the first appearance of the rash the temperature and pulse were normal. From the inception of the fever motor restlessness practically subsided and never reappeared, and his sleep improved. There was at the same time quite a sudden change for the better in his mental state, so that all opposition disappeared, and he co-operated freely in his treatment. His conversation was more free and rational, and sixteen days from the development of the streptococcus infection the following entry was made in his history: "Patient is improving daily. Had eight hours' natural sleep last night. Eating well. Talks freely and rationally. Is bright and cheerful for the most part; now hopeful and begins to believe that he will recover. Does not show any delusions or other mental irregularities." On March 26, 1903, or ten weeks after admission, he was sufficiently improved to return home.

CASE 3.—A man, 49 years old, of a highly neurotic nature, single, and a very successful traveling salesman, came under observation Feb. 6, 1903. Five months previous to admission he found himself growing nervous and irritable and unable to apply himself to business. Insomnia became a source of great anxiety to him, and he slowly drifted into a state of melancholia, with many and rapidly changing delusions of a hypochondriacal order. He was positive that nothing could be done for him. His waking hours were full of horrible fears, and his few hours of sleep disturbed by terrifying nightmare. If he were left alone a few minutes he became so alarmed as to cry out for help. Physically he was much reduced. Nineteen days subsequent to his admission he developed facial erysipelas, with a temperature of 103 and a pulse of 130. The eruption, temperature and other somatic symptoms ran a course of only five days. Coincident with the first rise of temperature, there was an improvement in his mental state, and the notes state that five days after the fever subsided he was normal, less nervous, sleeping better and appeared much less anxious about himself, and patient stated he was feeling better in every way. At no time subsequent to this infection was there any return of his delusions, although at times he became nervous and anxious. In four weeks he returned home and gradually began to take up his duties, and is quite well to-day.

These three cases demonstrate the almost miraculously sudden physical improvement and rapid melting away of delusions not infrequently witnessed by those coming in constant contact with the insane where some intercurrent disease or severe shock occurs. This is, however, more frequently the case in the reaction following the infection with the germ of erysipelas. None of these three cases has suffered from a return of their mental symptoms during the past twelve months. I had the opportunity, however, to observe one more psychosis complicated with erysipelas where the results were not so permanent but none the less sudden and pronounced.

CASE 4.—A man, 45 years of age, was suffering from profound melancholia. Insomnia, motor agitation and complete refusal of food were present along with delusions of persecution and loss of property. In this condition facial erysipelas developed, accompanied by a run of fever lasting a week, temperature never going above 100.5. Patient began to improve in every way as the temperature developed. His physical habits and functions became regular. There was a rapid mental clearing up, but he never abandoned the delusion that he was a ruined man financially. Four weeks later he began to grow more restless, sleeping poorly, and was more or less under the control of his delusive ideas. During the next eight weeks his condition remained stationary, but at no time during the past several months has he returned to the profound depression and confusion preceding the infection above named.

CIRSOID ANEURISM OF THE BRANCHES OF THE INTERNAL CAROTID AND BASILAR ARTERIES.

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I am indebted to Dr. Charles Montgomery for the privilege of reporting this case.

The patient, M. M., aged 13, has a negative family history. She presents a tumor over the right orbit which is said to have appeared a short time after birth as a growth the size of a hazel nut, whereas it now extends midway to the occiput. The tumor is pale in color, of a doughy consistency, and is composed of dilated terminal branches of the ophthalmic artery. There is absence of hair over the tumor. The eye projects forward, downward and outward. The conjunctiva

of the upper lid and of the inner and outer angles of the eye is thickened by distended blood vessels. The cheeks show dilated capillaries near the nose. Dilated vessels are not seen elsewhere. There does not appear to be any weakness in the walls of the arteries, as was shown by the prompt arrest of hemorrhage following the extraction of a right upper molar. This operation gave the patient great pain, showing that the fifth nerve was not affected. The fingers of the left hand are flexed and can exert some pressure, but less than can those of the right, and when this pressure is exerted a tremor develops. This is shown in the photograph by the blurred image of the hand which held the pencil, while the right hand was perfectly steady. The extensors are paralyzed; she straightens her fingers with the other hand, but they immediately return to the flexed condition. The left leg shows the same condition, the extensors are paralyzed, the flexors are in slight spasm, and in walking there is a spastic gait, the toes catching the

ground. The spasm of the flexors has developed gradually during the last six years. The skin of the left side is hyperesthetic. The right ear is deaf, the right nostril has lost the sense of smell, the right eye is blind and its pupil smaller than that of the left, but acts consensually, though sluggishly, with the left. All the external muscles of the right eye excepting the external rectus and the superior oblique are paralyzed, as is evidenced by the inability to move the eye up and in beyond the median line. The upper lid can be raised slightly, but that is evidently due to the action of the occipitofrontalis (i. e., paralysis of the third nerve with the exception of the fibers supplying the sphincter of the pupil and the ciliary muscle; these also do not functionate properly, as is evidenced by sluggish pupillary reaction).

Ophthalmoscopic examination shows the media perfectly clear. The optic nerve can not be seen. The entire background shows one mass of closely packed distended and tortuous arteries which have lost the central reflex band. At no place in the retina is there the smallest area free from vessels, and arteries can not be distinguished from veins. The left eye retains the power of all the muscles, but the pupil does not react when light is thrown into the right eye. There is entire absence of the left side of the field of vision and the right side is contracted to within ten or fifteen degrees of the fixation point.

The left ear and the left nostril are normal.

The tongue deviates from the median line when protruded and has lost the sense of taste on the right half. The patient has a very good memory and recites a piece of poetry of about forty verses without hesitation, but when speaking in ordinary conversation there has been of late a hesitancy in speech.

From the symptoms it will appear that the right olfactory nerve and the right optic nerve and commissure are subjected to pressure, and this is produced by the dilatation of the anterior cerebral and right ophthalmic arteries; the right third nerve and the crus cerebri are likewise subjected to pressure, and this is produced by the dilatation of the posterior communicating, posterior cerebellar and subcerebellar arteries. The pressure on the eighth and ninth nerves is produced by the dilatation of the anterior cerebellar, a branch of the basilar artery. As the basilar is formed by the two vertebral arteries, and the right anterior cerebral receives blood directly from the left anterior cerebral through the anterior communicating artery, ligating the right internal carotid and the right vertebral would be of no avail. I look forward to some amelioration of the conditions when menstruation is established.

ATTEMPT AT SUICIDE BY DRIVING NAIL INTO THE BRAIN.

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J. F. B., a native of England, aged 43 years, who was employed on the Nevada Central Railroad as a section laborer, had been on a drunk for two weeks. I was called by the jailer to see him, as he had refused to take any nourishment for three days. Pulse, 80; temperature, 99; bowels constipated. I advised nourishment by the stomach tube; this measure was successful, and soon he began to take regular meals. I was told that he had talked of committing suicide by driving a nail into his head.

I was asked to see him again ten days later and found him somewhat drowsy and unwilling to answer questions unless urged to very forcibly. Pulse, 86; temperature, 102. He referred what pain he had to the head, and on examination I found the head of a nail buried in the scalp six and one-half inches back of the nasal eminence in the suture between the two parietal bones. He was removed to the nearest hotel, and after an hour's questioning he admitted having driven a nail into his head in attempting suicide.

Under chloroform I extracted a three-inch wire nail, which had been sharpened for the occasion. Pus escaped from the nail hole, so I laid back a flap of the scalp and trephined the skull over the nail hole. On removing the button of bone, still more pus escaped, so I irrigated the track of the nail with sterilized water and with peroxid of hydrogen. By gently probing I traced the course of the nail down between the hemispheres of the brain into the great longitudinal fissure. A three-and-a-half inch drainage tube was insinuated into the course the nail had taken and a bichlorid dressing applied.

The wound was irrigated each day with peroxid of hydrogen and with sterilized water. The tube was shortened from time to time, the wound was well healed in two weeks, and the man was committed to the state asylum at Reno.

Coffee Gelatin vs. Coffee Infusion.—The London *Lancet* says: "A clear coffee gelatin after dinner is every bit as good as the hot infusion, while it is free from some of the drawbacks of the latter." Is this true for the person whose only purpose in drinking coffee is to have a hot drink to "warm up his stomach"? The *Lancet* calls gelatin an excellent vehicle for coffee, especially because it nullifies the astringent principles. Gelatin in the form of jelly is cooling, assuages thirst, is soothing, and has a tendency to absorb any excessive acidity of the stomach. This indicates where it will be of value.

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THE BIOLOGY OF CANCER.

Cancer is a subject that requires the utilization of every possible source of knowledge for the solution of its problems. It is fortunate that it is a disorder not confined to our species, but that in many ways it can be studied to advantage in the lower animals. This probably has been too little recognized in the past, but its fundamental significance was early seen by the workers in the British Cancer Research Fund. In an important paper recently published,[1] the general superintendent and director of the cancer research laboratory, Dr. E. F. Bashford, with the co-operation of Dr. J. A. Murray, reports the results of the investigations during the past year. They find that cancer growths are by no means infrequent in almost all orders of vertebrates, and in their general features are the same in all, notwithstanding the great diversity of conditions and environment. The very large number observed in domestic animals indicates very clearly, they say, that the malignancy of the growths is recognized according to the ease with which the animals can be examined and the length of time they are kept under observation. Malignant new growths are frequent according as the animals are frequently examined, and are only unrecorded in the species that are difficult to observe or that do not reach old age in sufficient numbers.

A few weeks ago, in a paper presented to the Royal Society, Farmer, Moore and Walker reported that the mitoses of cancer growths in man in part closely resemble or are identical with those of the reproductive cells. From their observations the authors concluded that malignant new growths were virtually reproductive tissue arising in abnormal situations and independent in growth like that of certain organs, such as the testis in the mammalian body. This peculiar sequence of the reproductive type of mitoses in cancers was present in all malignant growths they examined, but absent in the benign.

Drs. Bashford and Murray have had opportunity of examining the specimens reported on by these authors, and have carried the investigation still further into the lower animals with the result of fully confirming their statements as to the facts. They note the following points as of great importance: "A complicated sequence of cell changes has been found to be characteristic of carcinoma and sarcoma alike. The sequence is the same as that which initiates the origin of the sexual generation in plants from the asexual and [which] is terminal in the history of the sexual cells in animals." They further note the fact that not all the cells of malignant new growth undergo this reducing division. A certain number follow the type of mitoses of the tissues among which the growths arise. In secondary growths the usual somatic mitoses occur in the growing margin, which is also a feature in the growth of the transplanted metastatic cancer.

The transmission of cancer from man to animals or from one species of animals to another, has not been successfully performed, but it has been well established that cancer growths can be transferred from one animal to another of the same species. Professor Jensen of Copenhagen, who has done most in this direction, has placed some of his material at the disposal of the Cancer Research Fund, and Bashford and Murray have been able to confirm by experiments his observations. They find that the transplantation is identical in its processes with metastasis as it occurs in individuals providing the tumor. The earliest mitoses observed are of the somatic type. The process is in no sense an infection, the tissue of the new host not participating in the formation of new parenchyma; hence, the authors agree with Jensen and not with Borrel, who considered the results due to the agency of a cancer virus. The immense proliferation of the growth thus transplanted is one of its striking features, and indicates the possibilities of cancer dissemination. The phenomena of the experimental transmission of carcinoma show, they say, that we must distinguish between the problem of genesis of cancer and that of the condition which permits of its continued existence. The phenomena of cell division resembling those of the ordinary reproductive tissues may help to explain the nature of the great power of multiplication, but give no help as to the problem of cancer genesis. These phenomena, however, give indications of the character of the processes. The wide distribution of malignant growths and the possibilities in this regard not yet ascertained indicate that the cause of cancer is to be sought in a disturbance of those phenomena of reproduction and cell life that are common in the forms in which it occurs. Observations on animals—and these agree with the clinical facts in man—show that malignant new growths are always local in their origin, and of themselves produce no evident constitutional disturbance. There is an absence of specific symptoms, and the evident finding that cancer is an irregular and localized manifestation of normal processes in the life cycle of the organism probably explains why malignant new growths and their secondary disturbances have no specific symptomatology.

The suggestiveness of the facts here brought out, especially those noted by Farmer, Moore and Walker that cancer cells develop mitoses identical with those of re-

1. The Lancet, Feb. 13, 1904.

productive cells, is obvious. They are perhaps a little too suggestive, and may lead to deductions that are not as yet warranted. Attention is called to this point in a note added to the article of Drs. Bashford and Murray, who remark that their utterances have been misconstrued and conclusions attributed to them that have been drawn by others. The cells, they say, that have undergone the reducing division are not responsible for the invasion of the surrounding tissues nor for the production of metastases; for both of these the somatic dividing cells are responsible. Nor do the number of heterotype or reproductive mitoses in the cells have any relation apparently to the degree of malignancy; their absence is only presumptive evidence of the benign character of the tumor. They postulate nothing as to the future of these cells, though they believe them to be the terminal stage in the life cycle of cancer cells as in the sexual cells in animals. The local origin and the expansive and infiltrating growth is really the criterion of malignancy, and stamps it as belonging to a new cycle comparable in its entirety to the whole organism which it is invading rather than to any one of its tissues, reproductive or otherwise. The article is one that will undoubtedly attract considerable attention and be fruitful of future work in this particular line. The problems of cancer are yet very far from solution, but every step like this is an aid to their elucidation.

PHYSICAL CHEMISTRY AND SERUM THERAPY.

The subject of serum therapy is developing rapidly into such a complicated affair that few physicians have time or patience to attempt to master it. It certainly is a hopeless task for those engaged in ordinary practice. Only a few specialists pretend to know the various theories in all their phases, and to keep up not only with the great mass of facts daily accumulating, but also with the modifications of the theories which these new facts continually demand. No wonder we occasionally hear severe criticism of Ehrlich's theory, for instance, as regards its extreme complexity and the absurdity of some of its conceptions. Perhaps too often it is from those who have not the patience, or possibly the prerequisite knowledge to follow out the intricacies of the hypothesis, and who, for that reason, should not be heard. However absurd may appear some of the assumptions, no one can object to the theory as a working hypothesis. More than this no one claims for it. And until we get something better, it will continue to direct and suggest thought in the future as it has done for several years past. However, it is clear that it is only a question of time when the theory must give way to something more fundamental. It deals with chemical substances and chemical and physical processes; therefore, ultimately it must be interpreted in terms of chemistry and physics. It seems, then, that the vast nomenclature which has arisen in connection with this work must largely be supplanted by chemical and physical terms as soon as we have a sufficient understanding of these substances to apply them.

Of extreme importance is the recent work of Kyes, already editorially commented on in THE JOURNAL, in the way of placing this whole conception on a chemical basis. How much simpler the whole subject becomes when we know that a definite chemical substance—lecithin—can act as a complement, and also that a toxin, which we are accustomed to look on as a complex, organic substance, can be isolated and dealt with in pure crystalline form. This work is certainly extremely encouraging for the simplification of our conceptions of serum therapy.

Of equal interest and importance is the work of Arrhenius and Madsen[1] in purely physicochemical lines. Perhaps the medical profession should be congratulated on having the interest and thought of such a genius as Arrhenius directed along this line. Arrhenius is the noted physical chemist in Stockholm. We are already indebted to him for his great work in electrochemistry. It was he who, in 1887, first formulated that important and far-reaching theory of electrolytic dissociation. Through the brilliant work by van t'Hoff on the analogy of dilute solutions and gases and their relation to osmotic pressure, and also through the work of Raoult on the depression of the freezing point, Arrhenius was able from his observations on electrical conductivity to formulate this theory. It certainly is one of the most noteworthy generalizations in science in the nineteenth century. It is only recently also that he has accomplished much for science through the application of the conception of ions and electrons in the explanation of meteorologic phenomena.

His work in conjunction with Madsen in serum therapy bids fair to be of the same revolutionizing character that it has been in other fields. The problem here is the application of physical chemistry to serum therapy. They have shown, especially in their work with tetanolysin, that the same laws govern the reactions occurring between toxin and antitoxin as occur in ordinary chemical processes. The law of mass action prevails here as in other reactions. By this law is simply meant that the rate or velocity of a chemical reaction is proportional to the concentration of the substances reacting, i. e., to the product of the concentrations. This can be represented by the simple formula $V = KC_1C_2$ where V is the velocity, C_1 and C_2 the concentration of the reacting substances and K a constant for a given temperature, pressure, etc. The concentration is often spoken of as the active mass, and refers to the amount of substance dissolved in unit volume. In the case of solids, the concentration or active mass is always constant, and so the active mass is entirely independent of the absolute quantity of solid. As a

1. Zeitschr. f. physikal. Chemie, 1903, 44, 1.

simple illustration of the laws of mass action, we may refer to the inversion of cane sugar by an acid. If a certain quantity of a 10 per cent. solution of cane sugar is inverted in a unit of time, say one minute, then in a 5 per cent. solution of sugar only one-half as much sugar would be inverted in the same time and by the same quantity of the acid. The velocity of the reaction is only one-half as great in the latter case, therefore proportional to the concentration. It is to be noted, however, that the same time would be required in both cases for complete inversion. Now chemical equilibrium is established when the velocity of the reaction occurring in one direction of a chemical process equals the velocity of the reaction occurring in the opposite direction. Thus the relation of chemical equilibrium to mass action is made apparent.

The work of Arrhenius and Madsen shows that such laws as the above can be applied to such processes as the neutralization of toxin by antitoxin, hemolysis, etc. For example, the amboceptor and complement in combining, do so in such a way that they can be represented by the following equation: (amboceptor) $\times$ (complement) $=K\times$ (hemolysin) where K is a constant for same conditions of temperature, etc. In general, we may conclude, then, that the laws of chemistry and physics hold here as elsewhere. No one probably ever doubted the fact, but the significant point is that the demonstration is at hand.

So here, again, we have a whole new field opened up to the investigator; and certainly it seems to be a most fruitful one for important discoveries. Not only will new facts be discovered, but new interpretations may be given to facts already known which often means as much as the discovery of new ones. We have another illustration of the importance of physics, chemistry and mathematics to the biologist.

SECRETARY TAFT AND THE ARMY MEDICAL DEPARTMENT.

One of the first official acts of Secretary Taft can not but be highly gratifying to every member of the medical profession. It seems that, forced by certain incongruities in the present plan of organization of the Army Medical Department, a bill was drawn by which it was proposed, among other things, to increase the number of surgeons of the higher military rank and to provide for a reserve corps to be made available in time of war.

The original draft of this bill went in the ordinary course, before the General Staff for consideration and report. This General Staff is a highly useful body, created for advisory purposes, and presumed to be made up of representatives of the various branches of the service. It consists of forty-two members, four of whom, for instance, are general officers, twenty-two are line officers, five are engineers, while others are representatives of the Quartermaster's Department, the Signal Corps, the Artillery and other branches of the service. The Medical Department, alone, is without representation. Yet this General Staff, or at least the third division of it, made up of a representative from the Adjutant-General's Department, one from the Ordnance, two from the Artillery and one from the Signal Corps, considers and passes on the most intricate technical questions connected with the Medical Department, and, in the present instance, was called on to sit in judgment on the proposed measures for the reorganization of the medical staff. Naturally enough, several of the recommendations of the Surgeon General, notably the one asking for an increased number of surgeons of the higher military grades, were not indorsed. The Surgeon General, however, so it seems from the published correspondence, insisted on his point. The then secretary, Mr. Root, sent the draft back to the General Staff. The chief of staff then returned it, insisting on the previous dissent and filing an argument in support of the attitude of the General Staff.

The bill was in this condition when Secretary Taft took charge of the war office. His manner of disposing of the question shows that Secretary Taft is still Judge Taft, whatever may be his title. Thus, in his letter of transmittal to the chairman of the Committee on Military Affairs of the House, published in full in last week's issue of THE JOURNAL, he states, among other things:

> I have, however, carefully read the arguments of the Surgeon General and the statement of the third division of the General Staff, and also of the chief of staff, and I am bound to say that it seems to me that the arguments of the Surgeon General substantially outweigh those advanced by the chief of staff.

The recommendations of the Surgeon General were, accordingly, substantially concurred in, and in that condition the bill is now before Congress. This circumstance is mentioned at this time to show that the Secretary of War is, in fact, the head of his department; that he has a mind of his own and a judicial mind at that; and, furthermore, that the necessities of the medical service will receive intelligent and just consideration at his hands. It is the duty of the medical profession to make known its appreciation of his fairmindedness, which, unfortunately, has not always prevailed in the office now occupied by Secretary Taft.

THE DEVELOPMENT OF HEMOLYMPH NODES IN ADIPOSE TISSUE.

It is well known that under pathologic conditions new lymphadenoid tissue may arise either from pre-existing lymphadenoid tissue, from fat tissue as well as in fibrillated connective tissue, e. g., in the mucous and submucous coats of the intestines. Bayer laid special stress on the new formation of lymph nodes in fat tissue, as, for instance, in the neck and in the axilla, both being regions of especial interest to surgeons on account of the frequency of tuberculosis and carcinoma of the cervical and axillary glands.

In the course of his valuable studies of the hemolymph nodes, i. e., lymph glands with distinct blood sinuses, Warthin became aware of a close relationship between these glands also and adipose tissue, and in a recent paper[1] he discusses the histogenetic aspects of this relationship. In the first place, he emphasizes the lability of lymphoid tissue in general, which, in the case of the deeper lymph glands, shows itself especially in the marked variability in number, size and structure, as well as location. This variability is apparently even more pronounced as regards the hemolymph nodes in man, sheep and goats. In pregnancy and lactation, the axillary glands increase in size and apparently also in number, due, it seems, to new formation of lymphoid tissue in the axillary fat, as described by Bayer and Zehnder in regeneration of lymph glands. When lymph glands in any region become the seat of advanced disease, such as metastatic carcinoma, or are removed from the body by dissection, new nodes soon appear. Here, no doubt, is the reason that in regional lymphatic carcinoma the number of invaded glands so often seems to exceed the number of glands usually regarded as normal for the region in question. The new nodes, in part, arise in undeveloped nodes or collections of lymphoid cells that have the power of compensatory growth, but also it is thought wholly anew in the fat tissue. This progressive process finds its opposite in the fatty metaplasia of lymph glands in old age.

The hemolymph glands occupy similar relations to fat. Warthin describes a transformation in the embryo of the primitive fat organs into hemolymph nodes, in the course of which lymphoid cells appear along the capillaries, gradually increasing in number and assuming a characteristic arrangement. The origin of these lymphoid cells is not as yet clear. Lumps of fat tissue inclosing hemolymph nodes assume a brownish color in formalin—a means to help their recognition. In pernicious anemia and in splenic anemia, Warthin finds abundant evidence of new formation of hemolymph nodes, showing that under certain pathologic conditions the "stimuli" necessary for this evolution in fat become operative. Splenectomy in goats and sheep is also followed by the appearance of new hemolymph nodes in adipose tissue, even in those parts where normally they do not occur, as in the subcutaneous fat and along peripheral lymphatics. Many of the nodules described by earlier observers as new splenic tissue in splenectomized animals, appear to have been hemolymph glands. The exact causes and mechanism at work when new lymph nodes arise in fat are not understood. Lymph stasis in case of ordinary lymph nodes, or blood stasis in the case of the hemolymph nodes, is regarded as the earliest change in the fat lobules. Later the dilated lymphatics become lymph sinuses and the dilated blood capillaries blood sinuses, but the fundamental causes of this primary dilatation have not been worked out.

1. Proceedings of the Pathological Society of Philadelphia, 1903, vi, [illegible].

ADMINISTRATION OF THE ARMY MEDICAL DEPARTMENT.

The *British Medical Journal*, February 13, contains a leading editorial and a resolution by the British Medical Association which have a singular appropriateness to present conditions in the United States. The Boer War revealed defects in the organization of the British War Department very similar to those which the Spanish War brought to light in our own, and the proposed remedy for inco-ordinated bureaucratic administration is an army council corresponding to our new General Staff. It appears that on this army council, as on our General Staff, one of the most important and in number the greatest of all the staff departments, the medical, is not represented. Against this ill-advised and fatuous omission the British Medical Association protests in dignified and forcible terms, and the *British Medical Journal* points out that the dearly bought lessons of the Boer War are being already forgotten or ignored.

The parallel in our own service is complete. The function of our Army General Staff is to prepare plans for the national defense and to study all questions connected with the efficiency of the Army. Certain members of it are detailed for duty on the staffs of general officers, but as only a few are called on to perform executive duties, there is nothing in the law or organization of the General Staff which stands in the way of medical officers thereon. The Medical Corps is by far the largest of all the staff departments, constituting one-twelfth of the commissioned strength of the Army. It nearly equals in numbers the eight other staff departments which together contribute eleven out of the forty-two members of the General Staff. In the sanitary supervision of the Army and the examination of its recruits, as well as in the care of the sick and wounded, its efficiency is closely connected with that of the Army. It has an enlisted force of three thousand hospital corps men. In time of war it has administrative problems, which, in complexity and magnitude, are exceeded by those of no other staff department. And yet, in the working out of these problems and the study of questions of its own organization, the Medical Department has no voice. Matters pertaining to the organization, equipment and training of the Medical Department are considered and determined by a section of the General Staff composed of two officers of artillery, one of cavalry and one of infantry. All other matters pertaining to the Medical Department, no matter how complicated, technical and special they may be, are in the hands of the third division of the General Staff, the composition of which is an officer of the Adjutant-General's Department, one of the Ordnance, two of the Artillery and one of the Signal Corps.

The situation suggests laughter, and yet it is serious and should engage the prompt attention of the medical profession in this country as it has in England.

PRINTERS AND EDITORS.

That Chicago publications are not the only ones that are embarrassed sometimes by strikes in the mechanical department, is evidenced by the apology for lateness of issue which the *Boston Medical and Surgical Journal* gives in a recent number. Our contemporary has our sympathy, as has also the *Journal of Medical Research*, which likewise has the misfortune (we use the word only in its application to the existing delay) to be issued in Boston. A card announces that the *Index Medicus* is also a sufferer, the annual indexes for 1903 being still unfinished. We wish our Boston friends speedy release from their handicap. Our sympathy is born of experience.

THE NEXT SESSION OF THE ASSOCIATION.

Among the sections of the United States which have in mind an endeavor to secure the 1905 session of the American Medical Association is that which includes the states of Washington and Oregon. According to an editorial in the *Medical Sentinel*, the profession of the far northwest is actively at work to secure the session for either Seattle or Portland. They are mindful of the distance from the majority of the members and of the requirements to entertain such a large body, and it may be premature for us to call attention to the matter. We do so simply to give information to others. The Association last met on the Pacific coast in 1894, and in the general rotation of geographical distribution of the place of session, the Pacific coast will doubtless be the place of session before many years pass by. The Pacific coast is a delightful place to visit, and if one may judge from the attitude of the profession of the north coast, the American Medical Association would be warmly welcomed and heartily entertained. But Oregon and Washington are a long, long way off, and the railroad fare would be a great big item, and the time spent in coming and going is not the least of the objections.

HOSPITAL CARS FOR TUBERCULOUS TRAVELERS.

The plan which it is announced that the Santa Fe Railroad will adopt of operating hospital cars especially for consumptives, would be a good idea if it were more practicable. It is said that the company finds it something of a hardship to have to disinfect its cars after known cases of consumption have used them, and it therefore proposes to isolate consumptives and bar them from the conveyances used by others. That this will work a hardship in some cases goes without saying, but it may perhaps be advisable. There is, however, a practical objection which the company can not meet, and that is, unless they have some inspection methods and even a tuberculin test beforehand, the hospital cars will be occupied only by the most advanced cases, while the milder forms, which may be equally communicable, will pass unrecognized in the regular Pullman coaches. Probably one person in every two is at one time or other in his life affected with tuberculosis and may be capable of conveying it to others. Though the chances of this are probably greatly exaggerated, it would be a satisfaction to many to know that consumptives are not allowed to ride on Pullman cars. We must repeat that we have doubts as to the effectiveness of the proposed arrangement; what would be more practical and more humane would be a more sanitary, if less gaudy, car, even though this would necessitate the elimination of the unnecessary upholstery and other germ-carrying furnishings.

LEGISLATION FOR FREAKS AND FRAUDS.

Every little while some member of a state legislature furnishes amusement by introducing a freak bill as evidence of his mental aberration, incompetency or idiosyncrasy. One of the latest is a bill introduced into the Iowa legislature to legalize a new school of healing to be called "psychiropathy," apparently a sort of catch-all, to take in everything except the schools of medicine that are already recognized by the law. Eddyism, Dowieism, vitopathy, sarcic psychology—whatever that is—chiropractic, hypnotism, etc., are all lumped together with the Swedish movement cure, and hydropathic treatment under this general designation of psychiropathy. The results would, of course, be to let in every kind of fraud, quackery and delusion that can creep in under this comprehensive head. We have too much confidence in the good sense of the Iowa legislators to think that the bill will go through. There is even a suggestion that it is introduced as a sort of sarcasm, with no idea of its passing. It is well to be on the lookout for everything of this kind, however, for there is no telling in what way the humbugs will show up, and legislative sessions are too often perilous times for good government.

THE DISINFECTION OF PAPER MONEY.

A proposition has been made that banking institutions disinfect all paper currency which passes through their hands. This proposition is made in all seriousness, and is worthy of commendation. If there is any value in disinfection, and if it is worth while to attempt to avoid contagion, it seems a little remarkable that we regularly and willingly undergo the dangers from a medium that is a good contagion carrier, that passes through all kinds of hands, and that consequently favors the spread of disease. No sanitarian would refuse a ten-dollar bill, however tattered and infected, not even from the hands of one whose sanitary condition is obviously unwholesome; and who can tell through whose hands it passed before? It is not too much to say that the fight against tuberculosis and other infectious diseases will result only in partial success if the danger from paper currency is not recognized. Of course, even though the banks disinfect all such currency, there will still be the danger from the interchange among individuals. At the same time, the disinfection by wholesale, if we may so put it, by the banks will surely do much good. The expense will be very small, and the evil possibilities that will be lessened are hardly calculable.

THE DANGERS OF THE BATH.

In the onward march of medical progress there come frequent warnings against established customs, and we are admonished that this or that habit is exceedingly dangerous, and we accordingly mend our ways. These

behests of science not infrequently meet remonstrance, in spite of the columns of statistics, bacteriologic slides and case histories. For some time we have boiled the water that we drink, now we must boil the water in which we bathe. An Indian confrère[1] warns against the careless practice of bathing in typhoid-laden water, and declares that access to the mucous cavities during immersion is comparatively easy to the little bacteria. To treat the matter seriously, here is a real danger, much greater in India, perhaps, and wherever water is badly infected, but a present danger in all typhoid-infected water. Just how much possibility of infection there may be in the entrance of a few ounces of water into mucous cavities will depend on the virulence of the germs and the resistance of the system. If we approve the warnings to wash raw vegetables in boiled water, to use pure ice, to brush the teeth in boiled water, it naturally follows that to be perfectly consistent and safe one must bathe in water that has been boiled.

THE PANAMA CANAL COMMISSION'S SANITATION PROBLEM.

For reasons that are not entirely within our cognizance, President Roosevelt has not granted the petition of the medical profession that he would appoint a medical sanitarian on the Panama Canal Commission. Without wishing to criticise, we naturally regret this, but we still trust that the sanitary necessities of the case will be provided for—not superficially but efficiently. The history of the earlier work on the Panama isthmus is enough to convince anyone that the first question of all is that of sanitation. The mortality may be enormous, and the responsibility therefore appalling. What can be done now that the commission is fully appointed is to insure that a hygienic administration under a competent and tried sanitary director be installed from the beginning. The head of the department should be a man who is thoroughly competent as regards both scientific attainment and executive ability; he should also be endowed with absolute authority and responsibility for everything that may bear on the health of the working force and for the sanitary conditions generally. We are not without men who fill the requirements. Major Gorgas, who was recommended by the medical profession as a member of the canal commission, is one of them. His work in Havana is good evidence of what he could do in even a wider field. Possibly just as satisfactory an arrangement as to have a single medical man on the commission may be secured if its members are fully aware of the needs and appoint a competent director of sanitation, in whom they have sufficient confidence to give him full authority and responsibility in sanitary matters. We trust this will be the case. If some such effective arrangement is not made, every member of the commission will be responsible for the lives that are lost. That the mortality and sickness can be reduced to a minimum is sufficiently evident with our present knowledge of tropical diseases, and that, on the other hand, it can reach a maximum that will be paralleled only by former experience in the same region is equally evident. The responsibility of the commission regarding this matter is a great one, and we trust that it will fully realize it.

1. Beevor: Indian Medical Gazette, October, 1903.

THE ETHICS OF EATING.

The influence of the mind over the body is perhaps nowhere better illustrated than in the relation between psychic conditions and digestion. We recently emphasized the value of the deliberate and thorough mastication of food, and took occasion to say that how one eats is often of more importance than what one eats. In the treatment of dyspepsia, it is important to secure freedom from anxiety, pleasant surroundings and such other accompaniments as conduce to enjoyment in eating. Pawlow's classical experiments on gastric secretion in dogs led him to some important conclusions on this subject. One of them is that food eaten without relish and without appetite, although in itself most nutritious and supposedly easy of digestion, may remain for hours in the stomach undigested. The same result often follows when food is eaten while the mind is diverted to other things, especially in case of anger, anxiety, preoccupation, etc. Pawlow says that the old and imperative requirement that food should be eaten with interest and enjoyment is the most emphasized and strengthened of all of his conclusions. Thus food which is nutritious and of the best quality may remain undigested because it lacks presentation in an attractive form or is served amid unpleasant surroundings. Pawlow even says a good word for the preliminary cocktail or the use of some alcoholic in small amounts, as these, by producing slight exhilaration, divert the mind from unpleasant surroundings, and may enable one to forget cares and worries. It is hardly necessary to suggest, however, that this remedy may be more harmful than otherwise. But the enjoyment of eating is the important factor, and of many harmless means to secure this end, it matters little which means is used provided the end be secured. It is well to call attention again to this well-known fact; here is the solution of many an indigestion problem, especially among business men in cities. The psychologic factor in this important function is not to be forgotten.

DESTRUCTION OF WEAKLINGS AN IMPOSSIBLE PROPOSITION.

A little while ago a distinguished educator was reported to have publicly favored destroying the weaklings in society. It was a rather remarkable and not altogether pleasant sequence, if we may judge by the published interviews, that a number of persons were found who supported the alleged views. It is of interest in this connection to note that a London physician is said to have advocated the cessation of all attempts to prevent suicide, particularly on the part of the insane, because this would make for public economy and for the general improvement of the race. The survival of the unfittest is a perennial problem of our civilization, but to our credit be it said that there are few who would be willing to have the problem evaded in the way above suggested. The higher moral considerations, we believe, will always prevail; the care of the helpless and the defective in any community may be taken as the index of

its grade of civilization. Parental and familial love are concentrated on the weak child, and even in the lower animals mother love is often intensified toward the crippled or weak offspring. The attribute of compassion makes this barbarous proposition impossible to consider seriously, but our compassion is superficial if it does not impel us to prevent, as far as possible, the increase of the number of the helpless. There are many evil tendencies to be combated. Even the castration of habitual criminals and the exclusion from the right to marry of those who are mentally, morally and physically unfit, are measures a hundredfold more acceptable than such a return to barbarism as killing off the unfortunate. It would undoubtedly have some effect on the production of this class of degenerates if justice were a little more certain, and if the worst forms of moral degeneracy were discouraged by the strong arm of the law more than is now the case. It is a curious inconsistency of the public that it is so tender to criminals as regards capital and even lesser punishment, while it will listen to and coolly discuss such propositions as that of deliberately killing off the physically and mentally weak and unfortunate.

THE RELATION OF ACID-FAST BACILLI TO THE TRUE TUBERCLE BACILLUS.

Since the discovery of the timothy bacillus by Moeller in 1897, a good deal of attention has been directed to the group of so-called "acid-fast" bacilli, especially as regards their relation to the tubercle bacillus. The occurrence of certain acid-fast bacilli in milk and milk products, and the occasional presence in the sputum, in pulmonary gangrene, of other varieties, will be recalled as circumstances which at first led to mistaken bacteriologic diagnoses. In recent years the bacteria of this group have been well studied, both from the bacteriologic and the histologic standpoint, and differences between them and the true tubercle bacillus have been brought out; differences which, from the histologic standpoint, are rather slight. Moeller, who has consistently studied the acid-fast bacilli in their relation to the tubercle bacillus, and who can rightfully lay claim to an authoritative knowledge of the subject, has presented in a recent article[1] some very interesting facts concerning active immunization against tuberculosis by means of inoculation with bacilli of the acid-fast group. His work is based on the assumption that the acid-fast bacilli are closely allied to the true tubercle bacillus. Reasoning from analogy with vaccinia and smallpox, he advances the idea that it may be possible to produce immunity against tubercle bacilli by inoculation with some of the relatively harmless varieties of acid-fast bacilli. As far as animals are concerned, he has, in fact, shown this to be the case. He shows that the members of the acid-fast group vary greatly in pathogenicity for animals, the least pathogenic being the timothy bacillus and his grass bacillus II, and the most pathogenic his 'pseudoperlsucht" bacillus. Between these two lie the milk bacillus and the smegma bacillus, the bacillus of blind-worm tuberculosis, and the drug bacillus, in order of pathogenicity. By means of inoculations with his "pseudoperlsucht" bacillus, he was able to produce a high degree of immunity against tubercle bacilli, both in rabbits and in guinea-pigs. He further showed that tuberculin made from the timothy bacillus and the bacillus of blind-worm tuberculosis caused a reaction in both tuberculous men and cattle, which differed only in degree from the true tuberculin reaction. Taken in conjunction with the work of Koch, who showed that tubercle bacilli could not be distinguished from acid-fast bacilli by agglutination tests, these facts seem of great importance, and suggest that a new field of investigation, looking toward the prevention, if not the cure, of tuberculosis, lies open. Moeller goes so far as to suggest that in his bacillus of blind-worm tuberculosis we may have an agent which is harmless to man, as it does not tend to produce progressive lesions, and which may lead on inoculation to immunity to tuberculosis.

1. Zeitschrift für Tuberkulose, vol. v, No. 3.

INORGANIC ANALOGIES WITH THE REACTIONS OF IMMUNIZING BODIES AND ALLIED SUBSTANCES.

Strong efforts are being made to bring the work on immunity more and more into the domain of pure chemistry. We have referred in previous issues to Kyes' discovery that lecithin, a tolerably well-known chemical body, may act as a complement. Some recent work by Landsteiner and Jagić[1] indicates that colloidal silicic acid, an inorganic substance, may, under certain circumstances, play the part of an amboceptor or intermediary body. These authors find that colloidal silicic acid in extremely feeble concentration will agglutinate the red blood corpuscles of the rabbit very much as do the organic agglutinins. Thus a 2.5 per cent. suspension of rabbit's corpuscles is agglutinated by a solution of colloidal silicic acid containing only 0.0005 to 0.0001 parts per 1,000. The colloidal solution, like the organic agglutinins, is rendered inactive by the application of heat. The corpuscles agglutinated by silicic acid are not hemolyzed, but if lecithin be added in very dilute solution hemolysis occurs. If too much silicic acid be used the hemolysis is diminished or may not occur at all, analogous to the complement-deviation (Ablenkung) of Neisser and Wechsberg. Fresh blood serum also affords the necessary complement for the hemolysis of silicized corpuscles. The evidence is, therefore, strongly in favor of an amboceptor-like action of the colloidal silicic acid. Someone should now undertake to determine whether or not colloidal silicic acid will unite directly with lecithin to form a body comparable with the crystallizable "lecithid" obtained by Kyes by the union of the amboceptor of snake-poison with lecithin, and a further attempt might be made to effect a union between one of the complements occurring naturally in the blood serum and the colloidal silicic acid, and to separate this compound as a pure substance. Once the chemistry of immunity has been brought into the realm of substances which can be satisfactorily analyzed, the possibility of constitutional formulæ becomes alluring. Should this be realized, we shall have made a long step toward the direct synthesis of the immunizing substances, a Mecca of the pharmacology and therapy of the future.

1. K. Landsteiner und H. Jagić: Ueber Analogien der Wirkungen kolloidaler Kieselsäure mit den Reaktionen der Immunkörper und verwandter Stoffe. Wien. klin. Wochnschr., vol. xvii, 1904, p. 63.

Medical News.

CALIFORNIA.

More Plague.—During February 6 cases of plague were reported in San Francisco, with 4 deaths. Provisional diagnosis was made in 5 of the cases.

Fire in County Hospital.—A fire which broke out in the San Bernardino County Hospital, February 20, did damage amounting to $6,000, and endangered the lives of a number of patients, all of whom were removed without casualty.

New Hospitals.—The Sisterhood of Mercy will soon establish a hospital at Barber, and one at Stirling City. It is understood that the president of the Diamond Match Company has donated $1,000 and a site for each of these hospitals.

January Deaths.—The deaths for the month in the state, exclusive of San Francisco, were 868, equivalent to an annual death rate of 15.96 per 1,000. Tuberculosis caused 165 deaths; pneumonia, 125, an increase of 25 per cent. over the preceding month; heart disease, 83; stomach disease, 55, and cancer, 39.

Personal.—Dr. Charles F. Craig, U. S. Army, delivered the Lane lecture at Cooper Medical College, San Francisco, February 19, on "Water as a Carrier of Disease."——Dr. Ray L. Wilbur, Stanford University, who is now studying in Germany, has resigned from the faculty of the university and will enter private practice.——Dr. Auren A. Stafford has been elected president of the Alameda Board of Health.——Dr. Robert V. Day has been appointed city chemist of Los Angeles.——Dr. Samuel E. Latta has been elected president, and Dr. Sylvester B. Davis secretary and health officer of the Stockton Board of Health.

DISTRICT OF COLUMBIA.

New Naval Hospital.—The contract for building the new naval hospital at Washington has been awarded. The bid for constructing the six buildings, including the administration building, was $141,900.

Personal.—Dr. Robert Perkins, senior resident physician at Emergency Hospital, has resigned to become resident physician at the New York Lying-in Hospital. He has been succeeded by Dr. Thomas F. Lowe. Dr. Perkins was presented with a handsome pocket surgical case by the physicians and nurses of the hospital on January 30.

Fined and License Revoked.—Dr. James C. Dowling was recently fined $10 for neglecting to report a case of diphtheria to the health department.——The medical supervisors of the district have revoked the license of Dr. Sigmund A. Czarra, to practice medicine in the district on account of unprofessional conduct in the alleged distribution of objectionable literature.

New Qualifications for Practice.—Senator Clay has introduced a bill providing that all physicians who have practiced medicine in any state of the United States for ten years or more, and who can furnish certificate of good character from the states in which they have practiced, shall be allowed to practice in the District of Columbia without examination on payment of the fee.

To Limit Communicable Disease.—A bill has been introduced in the senate to provide for the further prevention of the spread of communicable diseases, by requiring the physician in charge to notify the district health officer of each case of measles, whooping cough, chicken-pox and cerebrospinal meningitis, in addition to the diseases already listed, and furthermore to send a second notice when each patient has fully recovered. A fine of $100 or imprisonment for 30 days is the penalty provided for violation.

ILLINOIS.

Personal.—Dr. Joseph P. Comegys, Rock Island, has been appointed local surgeon for the Burlington system, vice Dr. Calvin Truesdale, deceased.

Scarlet Fever in Murphysboro.—It is reported that there have been more than one hundred cases of scarlet fever in Murphysboro in the last four weeks, and that thus far ten deaths have occurred.

Menaced by Diphtheria.—Lake City, a town near Mattoon, is suffering from an epidemic of diphtheria. All infected houses are quarantined, public schools have been closed, and public gatherings prohibited.

Examination Postponed.—The examination of candidate medical officers for the National Guard has been postponed until April 30. All desiring to take this examination should make application to the Surgeon General through military channels. The examination will he held at Rush Medical College, Chicago, beginning at 9 a. m.

Chicago.

Thousands for Hospital.—By the will of the late Thomas D. Lowther a sum of not less than $20,000 from the residue of the estate is devised to the Augustana Hospital.

Predicts Increase in Disease.—The report of the director of the Municipal Laboratory justifies the Department of Health in foreboding an increase in influenza, pneumonia and the impure-water diseases during the next few weeks.

Deaths for the Week.—In the week ended February 27, 674 died. Of these 151 died from pneumonia; 69 from consumption; 60 from heart disease; 46 from violence; 37 each from Bright's disease and bronchitis, and 32 from cancer.

Smallpox.—Two migrant cases of smallpox were sent to the Isolation Hospital last week. Both came from Pennsylvania; one had never been vaccinated and the other was vaccinated 40 years ago. There are now three cases at the hospital; at this time last year there were 59.

To Stop Spitting.—It is rumored an order has been passed by the City Council ordering the police to arrest all expectorators on sight. More than three years ago an ordinance was passed prohibiting spitting on the floors of public conveyances or public buildings. It is still in force, but not enforced.

Continued Cold Kills.—For the four weeks in February the death rate has progressively increased as follows: Week ended February 6, 15.92 per 1,000; February 13, 17.68 per 1,000; February 20, 17.41 per 1,000, and February 27, 18.02 per 1,000. This high mortality is due to the protracted cold weather; it is not so high, however, as the rate during the corresponding weeks of 1903.

Must Dilute Carbolic Acid.—The number of suicides from carbolic acid, and the ease with which this poison can be obtained without the prescription of a physician, has led to the drafting of an ordinance by the Retail Druggists' Association which contains the following provisions:

> Every druggist or other person who shall sell or give away any carbolic acid or any solution thereof containing more than 5 per cent. of carbolic acid, without the written prescription of a physician, except as hereinafter provided, shall be fined not more than $25 for each neglect.
>
> It shall be lawful to sell without the prescription of a physician a mixture containing equal proportions of carbolic acid, glycerin and alcohol.

INDIANA.

Smallpox.—During January 569 cases were reported from 37 counties, with 8 deaths. In January, 1903, there were 921 cases in 56 counties, with 50 deaths.

Physician's House Burned.—The house of Dr. Joseph Gardner, four miles south of Bedford, was burned to the ground, February 20. The loss exceeded $15,000, with only a small insurance.

Measles Epidemic.—It is reported in the local press that Hamilton County has 1,000 cases of measles, of which fully one-half are in Noblesville. Only one death has occurred. Several schools have been closed on account of the disease.

The Kluge Case.—Dr. William Kluge, Indianapolis jail physician, who was on trial for practicing medicine without a license, was found guilty by the jury and fined $50. He says he will appeal to the higher courts. Meanwhile the county commissioners have removed Dr. Kluge from his position and have appointed Dr. Harvey Hadley in his stead.

January Deaths and Disease.—There were reported 3,177 deaths in Indiana in January, an annual rate of 14.8 per 1,000. In the corresponding month last year there were 2,910 deaths, a rate of 13.2 per 1,000. Tuberculosis caused 408 deaths; typhoid fever, 38; diphtheria, 45; scarlet fever, 25; measles, 38; whooping cough, 7; pneumonia, 540; diarrheal diseases, 23; cerebrospinal meningitis, 41; influenza, 50; puerperal fever, 15; cancer, 103; violence, 132, and smallpox 8. The city death rate was 18.8 per 1,000, and that of the country 12.8 per 1,000. The cities showed a higher rate than the country in tuberculosis, typhoid, diphtheria, scarlet fever, pneumonia, diarrheal diseases, cerebrospinal meningitis, puerperal fever and violence, while the country rates were higher for measles, whooping cough, influenza and cancer. Tonsillitis was the most prevalent disease and measles the next most prevalent. Pneumonia stands fourth in the list of diseases, and caused 540 deaths. Cerebrospinal meningitis was the least prevalent. The reports show more typhoid fever than is usual in January. A complete summary shows that the public health in January, 1904, was not so good as in January, 1903.

IOWA.

Hospital Fair a Success.—The fair at Carroll for the benefit of Mercy Hospital netted more than $5,000 for the building fund.

Economic Move.—To reduce expenses the Sioux City College of Medicine, on May 1, will move from the Y. M. C. A. building back to its old quarters at Fourteenth and Jones streets.

Personal.—Dr. Fred W. Powers, Waterloo, has been elected president of the State Board of Medical Examiners, in place of Dr. Charles B. Adams, Sac City, term expired.——Dr. H. C. Hull, Crawfordsville, was badly hurt, February 10, by his horse slipping on the ice and falling on him.

Appropriation for State Institutions.—The house of representatives has passed the following appropriations for buildings: Iowa Hospital for Insane, Mount Pleasant, $87,100; Iowa State Hospital, Independence, $109,800, and Iowa Institution for Feeble-Minded Children, Glenwood, $150,400.

Pre-nuptial Instruction Denied.—The Dashiell bill was killed, February 25, by unanimous vote on the ground that its provisions were contrary to the constitutional guaranty of liberty and the pursuit of happiness. The bill proposed to require each prospective bride and groom to appear before some physician for instruction, with a view to reduce the number of defective children.

MARYLAND.

The Title of "R. N."—A bill for the registration of trained nurses with the title of "R. N.," was introduced in the legislature February 26.

County Coroners Named.—The governor has nominated Dr. Ricketts Nelson as coroner for Cecil County, and Dr. Dennis B. O'Neal for Allegany County.

Should Physicians Issue Burial Permits?—A bill has been introduced in the legislature to authorize physicians in Baltimore County to issue burial permits. Dr. John S. Fulton, secretary of the State Board of Health, says: "There are serious objections to the same person issuing certificates of death and burial permits, and it is easy to see how serious evils would result therefrom."

Baltimore.

Library Building for Medical and Chirurgical Faculty.—The bill appropriating $100,000 for the erection of a library building for the Medical and Chirurgical Faculty of Maryland in Baltimore was introduced in the legislature, February 25, and was at once referred to the Ways and Means Committee.

Increased Illness.—There is much sickness and a high death rate is noted. An examination of the reports of the City Health Department shows that the excess is due to influenza, pneumonia, bronchitis, chicken-pox, scarlet fever and whooping cough. In the week ended February 20 there were 47 deaths from pneumonia alone, and for the week ended February 27 50 deaths.

Smallpox in Lodging House.—Two cases of smallpox, both unvaccinated, were discovered at an overcrowded home for poor lodgers on February 23. The house has 400 beds and 700 inmates. The two were sent to quarantine and a large force from the health department, in spite of resistance, vaccinated all the inmates who could be caught. The place was fumigated and two other suspects were sent to the House of Detention.

Governor Nominates Coroners.—Governor Warfield has nominated to the legislature the following as coroners for Baltimore: Dr. G. Milton Linthicum, northern district; Dr. C. Frank Jones, southwestern district; Dr. Benjamin S. Hayden, central district; Dr. Otto M. Reinhardt, southern district; Dr. Silas Baldwin, northwestern district; Dr. Frederick Caruthers, northeastern district; Dr. Patrick F. Martin, western district; Dr. Thomas H. Sudler, eastern district, and Dr. James D. Iglehart, at large. The city coroners are named by the city senators. Drs. Jones, Baldwin, Martin and Reinhardt represent reappointments; the rest are new men.

Hospitals Overcrowded.—The University and City hospitals are overcrowded. At the former cots have been placed in the public wards, and private accommodations have received a double number of patients; still many have had to be turned away, and it is proposed to utilize the nurses' sitting-room for a ward. It is said that many of the patients under ordinary circumstances would have been treated at their homes, but the fire has made it necessary for them to seek a hospital. Cots have also been utilized at the City Hospital. The hospital authorities feel so grateful for the saving of their institution and the ready help offered in removing their inmates when the fire threatened that they are willing to submit to any crowding or inconvenience in order to serve the community.

MASSACHUSETTS.

Hospital Bequests.—By the will of George B. Upton, Milton, the Massachusetts General Hospital receives $10,000 and the Massachusetts Charitable Eye and Ear Infirmary, $5,000.

Personal.—Dr. George W. Ryan, senior interne at the Calvin Emergency Hospital, Brockton, was operated on for appendicitis, February 23.——Dr. Thomas B. Shaw, Worcester, has returned from a trip to England.

Medical Inspectors Elected.—The Cambridge Board of Health has re-elected Drs. W. H. Clancy, William E. Fleet, Nelligan, Thomas J. Leahy, Eugene A. McCarthy and Francis J. Barnes, medical inspectors of schools, and has elected Drs. Charles M. Hutchinson, Myron L. King and L. Arthur Moll, to fill vacancies on the staff.

District Nurses in Boston.—The annual meeting of the Instructive District Nursing Association showed that a successful work had been done, but disclosed an excess of expenses over receipts during the past year of more than $1,300. Eleven nurses were employed on the districts of the Boston Dispensary District physicians, one works in Cambridge, and three are obstetric nurses.

Institutions Need Money.—The Boston Board of Trustees for Pauper Institutions has applied to the mayor and aldermen for a grant of $210,000 to be expended in building an addition to the hospital and an addition to the power plant. This board was severely criticised last fall by a majority report and completely exonerated by a minority, as a result of a prolonged investigation. In view of this action there will probably be difficulty in securing this grant, which is so much needed.

NEW YORK.

Health of Albany.—The January mortality of Albany was at the annual rate of 14.50 per 1,000. Only 4 cases of typhoid fever were reported, with one death.

Smallpox in Owego.—The president of the Owego Board of Health announces that there are several cases of smallpox in the city, and his report is confirmed by the secretary of the State Board of Health.

Hospital Open.—St. Peter's Hospital, Albany, has opened its new addition, which has been erected at a cost of about $60,000. The building is four stories high and contains five wards, a large operating room, solaria, and a roof garden.

Only Two Passed Examination.—Of the five candidates for the position of superintendent of the new State Hospital for Consumptives, Raybrook, Drs. John H. Prior, Buffalo, and Frederick L. Hills, Binghamton, alone passed the examination. The other three failed on the practical diagnosis of tuberculosis by examination of patients.

Personal.—Dr. Dennis Lucey, formerly physician to the Elmira Reformatory, who is ill with tuberculosis, has been removed to a private sanatorium.——Dr. James N. Vander Veer, Albany, was recently operated on for appendicitis.——Dr. Henry E. Clarke has succeeded Dr. Lemon Thomson as health officer of Glens Falls.

New York City.

Dr. Delafield Ill.—Dr. Francis Delafield is reported to be ill with pneumonia, but it is said that his condition is steadily improving.

Charity Ball.—The Nursery and Child's Hospital will receive about $8,000 as the proceeds of the twenty-fourth annual charity ball recently held at the Waldorf-Astoria.

Conrad Again Indicted.—Dr. Edward E. Conrad was rearrested, February 19, on the same charge which was dismissed by the grand jury two days before. Bail was fixed at $10,000.

Personal.—It is announced that Dr. Frederick Peterson has resigned as a member of the State Commission in Lunacy. Dr. Peterson is the president of the board.——Dr. Emil Mayer has been appointed adjunct attending laryngologist to Mount Sinai Hospital.

County Medical Society Hears Mayo.—Dr. William J. Mayo, Rochester, Minn., read by invitation an article on "Indications for, and Result of, Operations on the Common Duct of the Liver" before a large and enthusiastic meeting of the New York County Medical Society, February 29.

Will Examine Gas.—The coroners from New York and Kings County report that in the last thirteen months deaths from asphyxiation in New York City were 76, and in Kings County 72. An analysis of gas made by the city chemist shows that it contains 24.34 per cent. of carbonic acid. According to Charles E. Doremus of the College of the City of New York 12

grains is sufficient to kill the average man. Accordingly Senator Martin has introduced a bill calling for an investigation of the gas situation in New York City.

Buffalo.

Personal.—The board of aldermen has increased the salary of Fire Surgeon O'Brien from $1,500 to $2,000.——Dr. William R. Pryor of New York City was recently given a dinner by D. Matthew D. Mann.

High Winds and Intestinal Diseases.—Health Commissioner Greene has sent out circulars of inquiry among the physicians asking for information concerning the effect of high winds on the lake on intestinal diseases. It is his theory that because of the winds the water in the Niagara river, the source of Buffalo's water supply, becomes filled with sand, which produces irritant effects on the mucosa of the stomach and intestines.

Anti-Vaccinationist Active.—Officials of the health department assert that H. E. Sturdevant, who recently lost a law suit against the city, in which he claimed $25,000 damages for the death of his six-year-old daughter, on the ground that she died as a result of compulsory vaccination, is circulating a petition about the country in which he asks financial assistance to enable him to prosecute his suit. Lucille Sturdevant died after having been vaccinated while she was a pupil at one of the public schools. A stone erected over her grave in Forest Lawn Cemetery states that she died of compulsory vaccination. The petition circulated by Sturdevant purports to have the endorsement of the Anti-Compulsory Vaccination League of New York City.

Typhoid in Buffalo and Elsewhere.—The census report of the United States on typhoid fever shows that Buffalo is quite as free from typhoid fever as are other cities of its class. The death rate in Pittsburg from the disease in 1901 was 124.7 per 100,000, Allegheny 100.8 per 100,000. The other cities of the union which have a greater proportion of deaths per 100,000 than has Buffalo are as follows: New Haven, Conn., 92; Charlestown, S. C., 73.8; Washington, 67.3; Atlanta, 61.7; Minneapolis, 57.6; Troy, N. Y., 57.3; Louisville, 56.3; Cincinnati, 53.5; Denver, 47.9; New Orleans, 47; Nashville, 45.5; Kansas City, 42.9; Reading, Pa., 42.7; Wilmington, Del., 42; Cleveland, 35.9; Columbus, 35.5; Richmond, 34.8; Grand Rapids, 34.7; Salt Lake City, 34.5; Philadelphia, 33.3; St. Louis, 33.3; Hartford, 36; Scranton, 30.1; Toledo, 0.30; Los Angeles, 29.1; New Bedford, 28.8; Indianapolis 27.4; Baltimore, 27.3; Paterson, N. J., 27; Buffalo, 26.8. The two cities larger than Buffalo having a lower death rate of typhoid fever are New York, with a death rate of 20.3 per 100,000, and Boston, with 24 per 100,000, and in Buffalo's class San Francisco, with a death rate of 20 and Detroit with but 15.7 per 100,000. During 1902 and 1903 Buffalo's death rate from typhoid was increased because of an epidemic at West Seneca. The disease spread among workmen constructing the steel plant so that many of them living in Buffalo contracted the disease or were brought to the hospitals of the city for treatment. For 1902 the death rate from typhoid, accordingly, was increased to 35 per 100,000, and during 1903 was 33 per 100,000. At present the city is free from the disease.

PENNSYLVANIA.

Physician Stricken.—Dr. David L. Bailey, Carbondale, recently had a cerebral hemorrhage. He is now making satisfactory progress toward recovery.

Bequest to Philadelphia Hospital.—By the will of Mrs. Elizabeth Solliday, Doylestown, $1,000 is bequeathed to the Presbyterian Hospital and Dispensary, Philadelphia.

Physicians Majority of School Board.—The school board of Wilkesbarre consists of six members, two of whom, Drs. Charles Long and Boyd Dodson, are newly elected, and two other physicians are hold-over members.

Will Not Shave Consumptives.—By the new rules of the Altoona Board of Health barbers are no longer permitted to shave consumptives in the communicable stage of the disease. It is not stated whether or not rules for differential diagnosis are made part of the new regulations.

Report of Butler Epidemic.—The State Board of Health has ordered printed 5,000 copies of the report of Dr. Wilmer R. Batt, state quarantine officer, on the typhoid epidemic in Butler. These are to be distributed throughout the state for information and guidance of health and other authorities in dealing with this disease.

Pennsylvania Leads in Smallpox.—Pennsylvania has the unenviable distinction of having within its borders more smallpox cases than any other state. From December 20 to January 23 there were in Philadelphia alone 387 cases, with 120 deaths, and in Allegheny County 112 cases and 26 deaths. Lack of authority to cope with the disease is stated to be the cause of its prevalence.

Election.—At the annual meeting of the Butler County Medical Society held in Butler, January 13, the following officers were elected: President, Dr. W. Rush Hockenberry, Slippery Rock; vice-president, Dr. Willard B. Campbell, Harrisville; secretary, Dr. William B. Clark, Butler; treasurer, Dr. M. Edward Headland, Butler, and censor, Dr. Harvey D. Hockenberry, West Sunbury.

Philadelphia.

Would Not List Consumption.—Compulsory registration of tuberculosis as a contagious disease was voted down by the Philadelphia County Medical Society by a tie vote.

Resignations.—Drs. John H. Musser and J. Chalmers Da Costa, medical civil service examiners, have resigned.——Dr. H. F. Dietrich, resident physician at the Samaritan Hospital, has resigned.

Hospital in Quarantine.—St. Luke's Hospital was placed under strict quarantine by the chief medical inspector of the Bureau of Health, February 23, as two cases of smallpox had developed among the nurses at the institution. The two nurses were removed to the Municipal Hospital.

Alumni Dine.—On February 20 the alumni of the medical department of the University of Pennsylvania held their annual banquet. Dr. George E. de Schweinitz acted as toastmaster, and Surgeon-General Robert M. O'Reilly, U. S. Army, and Drs. George W. Guthrie, Wilkesbarre, and Horatio C. Wood, Aloysius O. J. Kelly and Roland G. Curtin of Philadelphia responded to toasts.

Crile in Philadelphia.—Dr. George W. Crile, Cleveland, delivered an address at Jefferson Medical College, February 23, on "Some Observations on the Surgical Physiology of the Vascular System." In the evening he was the guest of honor at the tenth annual banquet of the W. W. Keen Surgical Society, at which about 60 were present, Dr. Hobart Amory Hare officiating as toastmaster.

Med.-Chi. New Hospital Open.—The new buildings of the Medico-Chirurgical Hospital, replacing those destroyed by an explosion a year ago, were thrown open February 23. The formal ceremonies consisted of the presentation of the buildings to the board of directors by ex-Mayor Charles F. Warwick, the acceptance on behalf of the board by Hon. Abraham M. Beitler, and an address by Attorney-General Hampton L. Carson, on "Advance in Medicine."

Health Report.—Typhoid fever is on the increase, and the health bureau announces for the week ended February 27 148 new cases, the greatest number recorded in any week during the year. The disease seems to be prevalent throughout the city and is not confined to any one portion. As a result of the prevalence of typhoid the city's death-rate is also greatly increased, 23 deaths being reported from this cause alone. This is an increase of 11 over the preceding week. There is a notable decrease in the number of smallpox, diphtheria and scarlet fever cases reported for the past week. The total number of deaths reported for the week was 693. This is an increase of 88 over the previous week, and 54 over the same period last year.

Grateful to Carnegie.—The fellows of the College of Physicians of Philadelphia, as a token of their appreciation of the largest gift ($50,000) to the college in the 116 years of its existence, have authorized the president, Dr. Horatio C. Wood, and the vice-president, Dr. Arthur V. Meigs, to express the thanks of its members to Andrew Carnegie, the benefactor; also to inform the donor that, by a resolution of the college, a suitable tablet is to be placed in the college building to commemorate the generosity that has enabled them to provide for the growth of their great medical library. By the generosity of S. Weir Mitchell these sentiments have been inscribed in water colors on a beautiful artistic diploma to be presented to Mr. Carnegie.

Lectures for Medical Inspectors.—Director Martin of the Department of Health has arranged a course of lectures on contagious diseases for the benefit of the medical inspectors and of physicians at large. The course was inaugurated February 16, by lectures on the diagnosis of smallpox, by Drs. William H. Welch and Jay F. Schamberg. The succeeding lectures are as follows:

February 26.—Normal course of vaccinia, spurious results, vaccinal eruption, complications, technic and vaccination scars.

March 4.—Symptomatology and diagnosis of scarlatina, rubella, measles and chicken-pox.

March 11.—Skin diseases; what are apt to be confounded with the exanthematous fevers?
March 18.—Skin diseases apt to be encountered among school children.
March 25.—Leprosy and syphilis.

How to Detect Diseases of Children.—A series of lectures is now being given for the benefit of school principals and teachers. The general subject is the diseases of children and the methods of detecting them. The course commenced on February 23 and continues until March 30. The schedule is as follows:

February 23.—Introduction, with remarks on the nervous diseases of children, Dr. S. Weir Mitchell.
February 24.—"The Early Recognition of Disease," Dr. Hobart A. Hare.
March 2.—"The Eyes of School Children," Dr. George E. de Schweinitz (lantern illustrations).
March 9.—"School Life in Its Relation to the Deformities of Childhood," Dr. H. Augustus Wilson (lantern illustrations).
March 16.—"The Efficacy of Vaccination; the Early Symptoms of Smallpox, Scarlet Fever and Measles," Dr. Jay F. Schamberg (lantern illustrations).
March 23.—"Contagious Skin Diseases of School Children," Dr. Jay F. Schamberg (lantern illustrations).
March 30.—"Mouth Conditions of Childhood and Youth a Menace to Health." Dr. D. D. Smith.

GENERAL.

Appeal for Journal.—Dr. William Osler, president of the Association of Medical Librarians, has issued a circular appeal urging the support of the *Medical Library and Historical Journal*, the second volume of which was entered on with 1904.

Ratification in New York.—As an indication of the hearty endorsement the reorganization plan is receiving in New York State it may be mentioned that the societies of the counties of Albany, Cayuga, Chemung, Dutchess, Franklin, Kings, Monroe, Oneida, Onondaga, Ontario, Rensselaer, Schenectady, Broome and New York have ratified the plan for union of the two state bodies.

Panama and Its Sanitation.—Dr. J. C. Perry of the U. S. Public Health and Marine-Hospital Service, whose elaborate report on the Panama Canal route, its sanitary condition, needs and possibilities, has been given to President Roosevelt, describes the two extremities of the route as exceedingly unsanitary and unhealthy, but he points out that extensive filling in of swamp land, proper disposal of sewage, protection from mosquitoes, destruction of unsanitary native houses, and the installation of a supply of good water will create a different character and make the places healthy.

FOREIGN.

Organization of the Profession in Germany.—The successful outcome of the united stand taken by the physicians at Cologne, mentioned editorially in our last issue, has been followed by a similar decided victory at Krimmitschau.

Opposition to Tuberculosis Sanatorium.—The Paris authorities were on the point of commencing the construction of a model tuberculosis sanatorium at Montmorency, an ideal site, on ground offered by the Duke de Dino, when the surrounding property owners officially protested and the project has been abandoned for the present.

The Chair of Surgery at Vienna Filled.—Prof. Julius Hochenegg of Vienna has been installed in the II chair of surgery at Vienna, vacant since Gussenbauer's death. Several German professors had refused the place, and after Garré had accepted it the negotiations were broken off at the last minute. Hochenegg is 43 years old, a pupil of Albert's.

Yellow Fever Expeditions to South America.—Drs. E. Marchoux and P. L. Simond of the Paris Pasteur Institute, arrived in Rio Janeiro, February 17, to study yellow fever. A fund has also been raised by the merchants and wharf owners of Hamburg to send Drs. Otto and Neumann of the Institute for Tropical Diseases to South America to study these diseases on the spot.

Some Anniversaries Among Our German Confreres.—Professor Edwin Klebs, the eminent pathologist, well known to Americans, celebrated his seventieth birthday February 6. The *Corr.-Blatt f. Schweizer Aerzte* does homage to him as its founder and first editor thirty-four years ago.——Professor Ernst Haeckel of Jena spent February in Italy to escape the celebration of his seventieth birthday, on the 16th, with which his friends were preparing to honor the world-wide fame of the great biologist.——The Vienna Medical Faculty is soon to renew the medical diploma conferred fifty years ago on Professors Weinlechner, von Valenta and Haas.

Alleged Origin of Syphilis.—At the last meeting of the German Society for the Prevention of Venereal Disease, held at Berlin, February 5, Professor Iwan Bloch delivered an address on the "Origin of Syphilis," to which he has devoted years of study. He stated that nothing has been discovered in history or prehistoric remains to indicate that syphilis was known in Europe until after it was brought from America by the Columbus expeditions. He asserts that it then ravaged Europe with the malignancy of a newly imported disease, while it had long existed on the western continent. From this view of syphilis as the "specific disease of modern times" he drew conclusions favorable to the prospects of its final extermination in time, in which Virchow, among others, firmly believed.

Expositions of Home and Municipal Hygiene.—The Germans have been holding some interesting exhibitions of articles and appliances connected with the hygiene of the home, the school, the workshop and the city. It has been found that these exhibitions are very instructive for the general public, and attract much attention and interest. Berlin has a permanent exhibition of everything tending to promote the welfare of the workingman at home and at work, and Dresden recently held a very popular "Cities' Exhibition," showing in detail and on a most extensive scale all that tends to promote the health of a community. The First International Congress for School Hygiene, to convene at Nuremberg, April 4, is to make a prominent feature of the exhibition connected therewith.

Campaign Against Charlatans in Germany.—At Bayreuth a charlatan has been sentenced to fourteen days' imprisonment on account of the death of two children from diphtheria under his hands. At Lubeck another charlatan. a woman, has been sentenced to one week's imprisonment and $7.50 fine. At Berlin another has been sentenced to a fine of $125 and another to eighteen months' imprisonment. At Mainz a charlatan, on account of three deaths under his procedures, was sentenced to a year's imprisonment and $125 fine, and at Torgau a barber was sentenced to a month's imprisonment for quack practices. At Trier the editor of a daily paper was fined $7.50 for inserting an ad guaranteeing the cure of deafness. He appealed the case, asserting that he supposed deafness was curable, and he was acquitted.

Poisoning from Food.—A bean salad made from canned beans caused severe poisoning among the pupils of a Darmstadt cooking school. There have already been eleven deaths. Professor Gaffky of Giessen has examined the beans and ascribes the poisoning to some bacterial toxin. He thinks that there must have been spores on the beans which survived the cooking in the can and developed in time, generating the toxin in question. Another serious and extensive intoxication was also reported elsewhere from the use of potato salad made from potatoes which had been cooked and sliced the day before.——An epidemic of lead poisoning is reported from Budapest, affecting more than 100 persons with a number of deaths. It has been traced to the kettles in certain distilleries which were lined with lead recently to shorten the process of making alcoholic drinks.

The Paris Information Bureau for Scientists.—Physicians and other scientists visiting Paris are charmed with the workings of the new Information Bureau established in luxurious quarters at the Sorbonne. They find there employes speaking English, French, Russian, German and Spanish, with every information for persons seeking opportunities for study or research, and the subjects are classified so that no time is wasted. The bureau can be reached by telephone. It is in charge of Dr. Blondel, the general secretary of the International Association of the Medical Press, who has already compiled nearly three thousand different catalogues of books, documents, lectures, etc., bearing on given subjects. The bureau has been informally open since last August, but the official inauguration occurred February 20 under the auspices of the "Conjoint Committee for the common interests of the City of Paris and of the University."

Recent Decisions of the German Medical Court of Honor.—A physician was reproved for signing a certificate testifying to the mental disease of a subject without a personal examination, merely accepting the assertions of the other physician who had examined the patient and signed the certificate with him. Another physician was reproved for "selling his practice," and another for placing two signs a yard square on his house, with the words "To the eye and ear clinic," followed by his name in smaller figures. He was ordered to use only a single sign and have nothing but his name on it, with a hand as guide for the direction. Another decision declares that it is contrary to professional ethics for a physician when his fee is paid at once to voluntarily offer to deduct a certain discount. "Such a procedure is altogether unworthy of a physician, as it places his medical services on the same plane as merchantable com-

modities." In another case the decision was given that a physician is under no obligations when a patient applies to him to inform the physician who has been previously treating the patient. The only exceptions are when the patient still maintains professional relations with the first physician.

Medical Congresses To Be Held in Europe in 1904.—The following is an almost complete list of the medical conventions to be held in Europe this year, except those of Italy. There may also be mentioned the Fourth Pan-Hellenic Medical Congress at Athens in May, and the French Congress of Neurology at Pau in August.

March 3-8.—Twenty-fifth German Congress of Balneology. Aix la Chapelle.
April 4-9.—First International Congress of School Hygiene. Nuremberg.
April 4-9.—French Congress of Climatotherapy and Hygiene. Nice.
April 5-10.—Fourth French Congress of Gynecology. Rouen.
April 5-9.—Third German Congress of Orthopedic Surgery. Berlin.
April 6-9.—Thirty-third German Congress of Surgery. Berlin.
April 18-30.—German Congress for Experimental Psychology. Giessen.
April 18-21.—German Congress of Internal Medicine. Leipsic.
April 25-26.—German Congress of Psychiatry. Göttingen.
May 2.—French Congress of Ophthalmology. Paris.
May 27-28.—Meeting of Inner Council of International Antituberculosis Central Bureau. Copenhagen.
July 20-24.—Tenth Quadrennial Congress of Polish Physicians and Scientists. Lemberg.
July 26-29.—British Medical Association. Oxford.
August 1-4.—Seventh International Congress of Otology. Bordeaux.
August 9-11.—Northern Congress of Surgery. Göteborg.
August 30.—Sixth International Congress of Physiology. Brussels.
September 12-17.—Fifth International Congress of Dermatology. Berlin.
September 16-19.—German Public Health Congress. Dresden.
September 17-24.—Seventy-sixth German Congress of Physicians and Scientists (Naturforscher Congress). Breslau.
September 19-21.—Tenth International Congress of Ophthalmology. Lucerne.
September 24-30.—Third International Antituberculosis Congress. Paris.
Third Week in October.—Seventeenth French Congress of Surgery. Paris.
Third Week in October.—French Congress of Urology.

Police Interference with the Russian National Medical Congress.—This occurrence was mentioned editorially last week. The congress was the Ninth Biennial National Medical Congress, "in memory of N. J. Pirogoff," and had assembled 2,136 physicians from all parts of Russia. There were 27 sections and 368 communications were presented in the course of the 2 general assemblies and the 177 section meetings. These congresses are always liberally subsidized by the national treasury, the departments of the interior and of public instruction, as well as by the local and provincial governments. The city also entertained the members lavishly. One of the principal addresses was by Lewascheff of Kazan, who asserted that the southwestern part of Russia offered peculiar advantages for the climatic treatment of tuberculosis, especially when supplemented by "that incomparable curative drink, kumiss." A health resort for the entire world ought to be organized there by the combination of these factors, but instead, dirt, discomfort, adulteration of kumiss and other disappointments prevail there. He urged the radical reorganization of kumiss therapy as the most imperative task for the profession in Russia. Professor Rasumowski of Kazan presided, and at the closing meeting, after reading the general resolutions of the congress, he stated briefly that the resolutions adopted by the various sections for certain reasons would not be read, and abruptly adjourned the congress *sine die*. Our French exchanges add—what is not mentioned in the Russian journals—that the police at once cleared the hall, and the protests of the section members and others were drowned by the loud strains of a military band. The offensive resolutions referred to the dangers of overcrowding and lack of sanitation, etc., as factors in the spread of disease. As the Jews are forced by the city regulations to live in their confined Ghetto, the demands of the hygienists in the congress conflicted with these ordinances, and the resolutions were consequently suppressed, and with them all the other resolutions of the sections.

DUBLIN LETTER.

The Irish University Question.

My last letter spoke of the history of university education in Ireland, and I shall now sketch some of the schemes which have been put forward as solutions of the problem. Although the plans for the session of parliament do not include any treatment of the question, its settlement can not be much longer postponed, as it is undoubtedly the most pressing matter in the field of Irish politics. The possible solutions of the question are not more than three or four. One is that such alterations might be attempted in the constitution of Trinity College as to render it more acceptable to Roman Catholic feeling, or, again, a teaching college under Roman Catholic management might be established in connection with the Royal University. Or finally, a new college, under Roman Catholic management, might be affiliated with Trinity College, in the existing University of Dublin. The first scheme, though best from a purely educational point of view, is probably not practicable at present, owing to the irreconcilable attitude adopted by the Roman Catholic clergy. The second scheme is more possible, but has the great objection that it will handicap the new college by connecting it with the name "Royal University," an institution admittedly a failure. In addition, the Roman Catholic laity fear lest such a college, being practically free of all Protestant influence, should be so much in the hands of the clergy as to be medieval in character. The third scheme has much in its favor, and is the one most before the public. It is supposed to be the solution suggested by Mr. Wyndham, the chief secretary for Ireland, and has gained the adherence of Mr. Mahaffy, one of the most influential fellows of Trinity College, and of Lord Dunraven, better known in America as a yachtsman, and of many Roman Catholic bishops and of a very strong body of Roman Catholic laity. The new college would have an established status at once, owing to its connection with Dublin University, whose degrees are held in respect throughout the world. The opposition to it will mostly come from the most conservative sections of Irish public opinion, and from those who fear their vested interests in Trinity College, or in its degrees, may be interfered with. Unfortunately, Mr. Wyndham and Lord Dunraven have obscured the nature of their scheme by including in it a place for Queen's College, Belfast, as a constituent college of the Dublin University. This is meant as a sop to the Presbyterian body, who practically control Queen's College. Now Belfast is some hundred and twenty miles from Dublin, and the two cities have little community of interest or sympathy of thought. It is strongly held that a university to be a university in any true sense must have a certain unity, as well of feeling and thought as of locus. If this offensive feature were dropped, there is every reason to suppose that the main outline would be accepted.

X-Rays in the Courts.

A law suit of unusual interest has just been heard in the high courts here. A child who was supposed to have a needle in his knee received repeated *x*-ray examinations to locate the needle. No needle was discovered, but a severe *x*-ray burn, resulting in an ulcer, appeared on the inner side of the knee, and took several months to heal. The examinations were actually made by an unskilled person—a mechanic—acting under the immediate supervision of the medical man, who was himself admittedly ignorant of a practical knowledge of radiography. It appears also that he did not recognize the ulcer as an *x*-ray burn, but after its formation continued to examine the knee for the hypothetical needle. Finally the child passed from under his care, and the parents, having discovered the cause of the injury, sued for damages, alleged to be due to negligence. The trial occupied seven days, and much expert evidence was brought forward on each side. Assuming the truth of the statement of the child's relatives that the *x*-ray tube had been held close to the knee for periods up to half an hour, the experts on one side gave their opinion that such application showed negligence. On the other side, it was maintained that the tube never came nearer the knee than eight or ten inches, and from the radiographs produced in court, it was held by experts, that the distance of exposure must have been at least eight inches. The jury returned a verdict for the defendants on every count, finding that there was no negligence. This is the first suit in this country for damages for *x*-ray injuries. Great interest was taken in it, not only by surgeons conversant with *x*-rays, but by the public at large, and the demonstration of *x*-rays at work in the public court caused much excitement. In fact, I have not seen such a scene in court since on one occasion some ten years ago it became necessary in the progress of a libel suit arising out of a game of cards, for counsel to demonstrate the game of poker to the presiding judge by dealing hands all round.

LONDON LETTER.

The Fate of the Ovum and Graafian Follicle in Premenstrual Life.

At the Obstetrical Society of London Dr. T. G. Stevens read a most interesting and original paper on this subject. No writer appears to have investigated the retrograde changes of ova and graafian follicles in premenstrual life. Dr. Stevens' researches are based on the examination of upward of 70 pairs

of ova, obtained in the postmortem room, of children at various ages, but always under the age of 10, so as to exclude the influence of menstruation. To get satisfactory sections great pains had to be taken in hardening. The ovaries were fixed whole in a saturated solution of corrosive sublimate, and the hardening was completed in alcohol of various strengths beginning with 30 per cent. and ending with absolute alcohol. Dr. Stevens found that rupture of the graafian follicles never took place and that nothing approaching the formation of a corpus luteum occurred. The follicle and ovum mature up to a certain point, and then a kind of phagocytosis takes place by which they are destroyed. The youngest graafian follicle, which may be termed a dormant follicle measures about .0325 mm., this measurement being practically that of the ovum as the covering of the follicle consists of only flattened cells closely applied to the ovum. In the next stage of development these flattened cells proliferate and become cubical, forming the membrana granulosa. Around this the cells of the ovarian stroma become concentrically arranged and form the fibrous tunic of the follicle. Liquor folliculi then appears among the cells of the membrana granulosa. These further proliferate and form the discus proligerus. At the stage of highest development in the child the follicle is .8 mm. in diameter and the ovum is .1 mm. (half that of the adult). Retrograde changes consist in the invasion of the ovum by phagocyte cells which appear to be derived from the cells of the membrana granulosa. Other cells of this layer disintegrate without further change. Eventually granulations form in the fibrous tunic and absorb the remains of the membrana granulosa and liquor folliculi. Discussing the rationale of these changes, Dr. Stevens points out that the ovary has two functions—the production of ova and of some internal secretion necessary to the health of the female up to a certain age. The supply of ova is unnecessary in childhood, and so the follicles do not burst, but probably the internal secretion plays an important part in the development of the female child. These constant changes in the graafian follicles may be the source of this internal secretion.

Abscess of the Uterine Wall in a Woman Suffering from Gonorrhea at the Time of Labor.

At the Obstetrical Society Dr. A. Lea described the case of a woman who had gonorrhea at the time of delivery and suffered during the second week after it from severe recurrent pain in the hypogastrium, but was able to walk about. Six weeks after delivery she was suddenly seized with intense abdominal pain, followed by symptoms of acute peritonitis. Laparotomy revealed an abscess in the posterior wall of the fundus uteri, which had ruptured into the peritoneal cavity. The abdomen was irrigated and abdomino-vaginal drainage was established by a large tube. The abscess cavity and the floor of the pelvis were packed with iodoform gauze. Recovery followed. Uterine abscess is rare. In many cases perforation has taken place into the peritoneal cavity when operation was not performed. Diagnosis is often difficult. Pain associated with great sensitiveness and enlargement of the uterus should arouse suspicion, but it is often difficult to distinguish the condition from infected myoma of the uterus. If perforation occurs immediate abdominal section is indicated. If the abscess is single and one or both appendages are normal conservative surgery should be carried out. If the uterus is infiltrated with pus hysterectomy should be performed. If the uterus is not removed drainage is necessary.

Septic Arthritis of the Ankle After Mumps.

At the Glasgow Eastern Medical Society Dr. J. W. Findlay described a case of mumps in which the very rare complication of arthritis occurred. The illness lasted a week, and the temperature was never over 100. When convalescence appeared about to be established a diffuse red swelling was found in the region of the left ankle-joint. The child became ill and the temperature rose to 102. Dr. Findlay diagnosed erysipelas. Three days later he opened what seemed to be a superficial abscess below the external malleolus. Later crepitation was detected in the joint. It was opened on its inner and outer aspects. Granulation tissue, débris and small fragments of cartilage were scraped away with a sharp spoon and the joint was douched and packed with iodoform gauze. After two days a drainage tube was passed through the joint and retained for a week. Then the wounds were allowed to heal. Five months after operation movements of the joint were only slightly limited. Osler mentions arthritis among the complications of mumps.

Latin as the International Language of Medicine.

The variety of languages which exists is a great obstacle to the spread of knowledge, and the need for a universal international language has often been declared. Attempts have been made with indifferent success to provide an artificial language, such as Volapük or Esperanto. The value of the ancient languages, Latin and Greek, for this purpose has also been discussed. In the volume of the Pathological Society's Transactions just issued Mr. Shattock has made a bold attempt to solve the difficulty by prefixing summaries in Latin to his three papers. In very comprehensible, if not classical, Latin he declares that it was a serious mistake that the Latin tongue was not retained as a medium of communication for those who devote themselves to the study of natural science. How grievous was the mistake is evident to all now that the number of languages used by those who write on natural science. Hence no one can know everything written on a subject however accurate be the references given in catalogues. As the Latin tongue is almost a necessary part of a liberal education he advocates its use. A paper on "The Fatty Vacuolation of the Nucleus in Fat Cells" is thus termed: "*De Vacuolatione nuclei in Cellula Adiposa.*"

A Revaccination Bill.

The Imperial Vaccination League has drafted a revaccination bill for introduction into parliament in the present year. It is proposed that children shall be revaccinated within six months of attaining the age of 12. The clause which exempts parents having a "conscientious objection" from penalties for failing to comply with the act for the primary vaccination of their children also appears in this bill.

The Institutional Treatment of Inebriety.

At the Society for the Study of Inebriety Sir W. J. Collins, surgeon to the London Temperance Hospital, and formerly chairman of the Inebriates Acts Committee of the London County Council, delivered a most interesting address on the "Institutional Treatment of Inebriety." He described the measures taken by the very progressive London County Council to treat habitual drunkards. In 1879 the first legislative recognition in this country was accorded to the habitual drunkard, who was defined as a person who, not being amenable to any jurisdiction in lunacy, is in consequence of habitual intemperance dangerous to himself or to others and incapable of managing his affairs. Licensing authorities and "retreats" were recognized. Entrance to the latter was voluntary, though once there the volunteer becomes a prisoner for the period specified. This act, though amended in 1888, did not prove a conspicuous success. The reasons were want of compulsory powers to secure the admission of dangerous and confirmed inebriates, insufficiency of the maximum period of detention (13 months), difficulties with refractory patients, escapes, etc. Accordingly in 1893 institutional treatment was provided for in certified state reformatories, supplementing the voluntary retreats. The act also enabled magistrates to substitute reformatory treatment for imprisonment of habitual drunkards who had committed crime while intoxicated or who by repeated appearances for certain scheduled offenses connected with drunkenness had shown the inefficiency of short imprisonments. Thus there are at present "retreats" which receive private patients who have made requests but who do not sign away their liberty by any form, and which also receive those who submit to compulsory detention for a period not exceeding two years, certified inebriate reformatories established by local authorities receiving cases sent by magistrates, and the more severe state inebriate reformatories which receive the more criminal offenders or those for whom the lenity of certified reformatories has been found useless. The London County Council was the first municipal body to establish a certified reformatory. It purchased an estate in Surrey consisting of 374 acres with two mansions for $65,000. Some $35,000 were spent in adapting the estate and buildings for the accommodation of 30 female patients. The demand for accommodation grew rapidly, and in November a new building, adapted for 80 additional patients in six blocks, was erected at a cost of $115,000. Each patient has a separate bedroom, brightly furnished. A picturesque flower garden with lake and lawn adjoins the old mansion house. At the home farm, a quarter of a mile off, is a model dairy where the better-behaved are instructed in butter-making, baking, etc. Caring for poultry and bees, fruit-farming, potato picking, weeding and haymaking are among the outdoor duties of the women. Everything is done to take the patients back to the simple natural life of the English country homestead. A system of marks has been arranged whereby the women are enabled to earn something against their time of departure. There are punishment cells, spacious and light, resorted to only when moral suasion is exhausted.

The Health of London.

The report of Dr. S. F. Murphy, health officer to the county council for 1902, has just been issued. A most gratifying feature of the report is that, thanks to the untiring efforts of the Public Health Committee, London becomes more healthy year by year. The death rate for 1902 was only 17.2 per 1,000—the lowest on record except that for 1901, which was 17.1. The birth rate continues to steadily decrease, that for 1902 being 28.5—the lowest on record.

Correspondence.

The Duration of Life After Fatal Injuries.

SAN FRANCISCO, Feb. 20, 1904.

To the Editor:—The question as to how long a patient may live after the reception of necessarily fatal injuries is just now the subject of judicial inquiry in the noted Fair case. In this particular trial the point at issue is whether Charles Fair or his wife lived the longer after receiving the severe injuries to the head that were disclosed by the autopsy. So far as gross lesions are concerned it would appear that Mrs. Fair's injuries were the more severe, the frontal bone being crushed and brain tissue lost. On this ground one of the medical witnesses very confidently asserted that Mrs. Fair must have died first. Apart from the fact that vital resistance is an unknown quantity in any given case, and that some individuals, such as those possessed of the so-called status lymphaticus, may instantly die as the result of the most inadequate causes, it is also apparent that quality and not quantity of tissue must be the determining factor in stopping the vital functions, a very small lesion in the neighborhood of the cardiac and respiratory centers being much more serious than a most extensive laceration of the frontal lobes. Rather curiously, lesions of the medulla and fractures of the base of the skull were not looked for in the case of Charles Fair. My object, however, in writing is to record a case that occurred in my practice some thirteen years ago, and to which I have often referred in private and to my class, but which I did not deem of sufficient importance until I read the medical opinion in the Fair case, with which this experience is entirely at variance.

A child, between one and two years of age, fell out of a baby carriage and rolled under the wheels of a heavily laden two-horse omnibus. The accident occurred in front of my house and the child immediately was brought in. The entire front of the head was crushed. The left temporal and frontal bones were torn from their anterior attachments, in a line running through the center of the orbit; in this way the vault of the skull was pried off the face, leaving an immense wound, through which at least a third of the brains had escaped into the roadway. As the child was carried into the hallway it uttered low cries, which, however, immediately ceased, but the breathing continued fairly regular for some time, as was the pulse. Final stoppage of the heart and respiration did not occur until twenty minutes after the receipt of the injury. I have always attributed this remarkable persistence of life to the probability that the basic ganglia were uninjured, and that notwithstanding the extent of the injury the loss of blood was not so great. H. D'ARCY POWER.

Significance of the Weight Wave of Menstruation.

CHICAGO, Feb. 24, 1904.

To the Editor:—As supplemental to my article on this subject in THE JOURNAL, June 13, 1903, allow me to report:

1. The increase in weight preceding the menstrual flow—which may exceed one pound per hour for several hours, the total increment being sometimes seven to nine pounds in 24 hours—is due to (*a*) increased absorption of oxygen, and (*b*) decreased excretion, notably of carbon dioxid and water. (Increased pressure of oxygen in the blood has been shown by Paul Bert, Hill and Macleod to retard metabolism and to decrease the excretion of CO_2 and water.)

2. The essential phenomena of the menstrual weight wave are therefore (1) the rapid absorption of oxygen with coincident retardation of metabolism and excretion, and consequent increase in weight; and (2) rapid excretion, especially of carbon dioxid (the exhalation of which may exceed two pounds in one hour) with consequent rapid decrease in weight.

3. Many observations, to be elaborated later, warrant the deduction that a cause of this metabolic cycle is an ovarian product; and that the menstrual discharge, white as well as red, proceeds from glandular activity of the uterus and is a feature of the general excretory activity of this period.

WILLIAM T. BELFIELD, M.D.

Optional Medical Course in Liberal Arts School.

CHICAGO, Feb. 29, 1904.

To the Editor:—Knowing that THE JOURNAL is interested in anything that tends to best equip the physician for his profession, I wish, as an alumnus and member of the board of trustees of Wabash College—one of the oldest literary colleges in the middle west—to state through THE JOURNAL the following optional course of study which has recently been adopted by this institution for students who propose entering professional schools:

A four years' course of study in which three years shall be prescribed work, all electives being reserved for the fourth year. Students taking this option will be permitted, if they so desire, to pursue their fourth year in attendance at a professional school approved by the trustees of the college; retaining in the meantime their college standing and responsibility and being eligible to graduation with their class on presentation of proper credits earned in this way.

Other options, of course, are given by the college in the way of allowing the elective work to be so arranged as to make the most advantageous connection with certain professional schools should the student desire to remain the full four years. The adoption of the foregoing optional course makes it of benefit to the student as well as to the college and, further, to the medical profession, should the student choose medicine as his profession. It so governs and directs the student as to guarantee for him the best education the profession offers. It gives the medical profession a more skilled and better prepared man, and the honor to the college will be reflected by the work accomplished in a professional way by this alumnus.

GEO. W. HALL.

Actinic Rays.

NEW YORK CITY, Feb. 22, 1904.

To the Editor:—Albert E. Sterne, A.M., M.D., has used some terms in his paper "Neurasthenia and Its Treatment by Actinic Rays" which I think should be corrected. This paper has been read before the American Medical Association and has been approved for publication by the Executive Committee of the Section. In medicine we are not bound to rely on authorities, and I for my part do not approve the title of that paper. Ἡ ἀκτίς is the ray, actinic ray would then be rayish rays, but that is nonsense according to my understanding. I have not studied the paper in question thoroughly, but at a glance I notice on page 501 some remarks on one form of hysteria characterized by what the French termed *"Grandes movements."* In Dr. Sterne's paper these two words are given with quotation marks and printed in italics, exactly as I give them here. There is no such word in the French language as movement or movements. Of course, Dr. Sterne means mouvement, but this is a masculine, the French term would therefore be *"Grands mouvements."*. I think it is very important to correct such mistakes, because they are transmitted by those who do not know better than the originator. A. ROSE.

Queries and Minor Notes.

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

CHARGES FOR SERVICES TO PHYSICIANS AND THEIR FAMILIES.

COLORADO SPRINGS, COLO., Feb. 18, 1904.

To the Editor:—I write for information. What is the present status of the profession as regards rendering bills and accepting

fees from physicians, and from their families, for services rendered? A recent personal experience pleads my excuse for enlightenment.

My eldest daughter, at present at school in New York City, developed some scalp affection. I advised her to consult a certain dermatologist, a man of some repute; a man with whom I was personally acquainted, whom I had entertained in my home, and a man to whom I have referred many New York friends. My daughter also induced a wealthy girl, one of her school friends, suffering from some skin trouble, to consult this man. January 1 I received a bill from this doctor for "Thirty dollars, less fifteen," the discount presumably owing to my being in the profession. I at once remitted the full amount, "Thirty dollars," and notified the doctor that he was very kind, but that I could not think of accepting his discount.

I have practiced here for the past thirty years, and during that time have attended hundreds of physicians and their families. I have always cheerfully responded, night or day, and have always felt it would be a personal insult if a physician requested a bill for services. From the above experience I have evidently been in the wrong. Your opinion and the opinion of the decent men in the profession would be valuable. B. P. ANDERSON, M.D.

ANSWER.—Our correspondent's custom of cheerfully rendering services to physicians and their immediate families without charge is the custom of the majority of physicians. Is it possible that the charge in this case was made by inadvertence or misunderstanding? The Principles of Ethics says:

"All practicing physicians and their immediate family dependents are entitled to the gratuitous services of any one or more of the physicians residing near them."

"When a physician is summoned from a distance to the bedside of a colleague in easy financial circumstances, a compensation, proportionate to traveling expenses and to the pecuniary loss entailed by absence from the accustomed field of professional labor, should be made by the patient or relatives."

DECISIONS UPHOLDING COMPULSORY VACCINATION LAWS.

ROANOKE, VA., Feb. 15, 1904.

To the Editor:—For the benefit of those concerned in prosecuting persons for resisting compulsory vaccination, will you kindly give references in the standard law reports to decisions of the supreme courts in the various states where the constitutionality of compulsory vaccination and re-vaccination law was upheld? For instance, what is the reference in the law reports to the cases in Georgia and North Carolina mentioned in THE JOURNAL A. M. A., vol. xl, No. 22, p. 1533?

FREDERIC B. WEBB, M.D.

ANSWER.—Morris vs. Columbus, 102 Ga. 792; State vs. Hay, 126 N. C. 999; Levin vs. City of Burlington (N.C.) 39 S. E. 822 or 55 L. R. A. 396.

LOSS OF TASTE AND SMELL FROM FORMALIN DISINFECTION.

BAKERSFIELD, CAL., Feb. 24, 1904.

To the Editor:—During December I had several cases of scarlet fever, on which I had to call two and three times a day, and after each visit I went to my office and disinfected myself with formalin vapor. After the first week I noticed that I could stay in the room for a much longer time before it would seemingly irritate my nose or eyes. As a result, my sense of smell is entirely gone and everything I eat or drink tastes like formalin. I am unable to find, from the literature on formalin or from inquiry of my brother practitioners, what I can do to regain my sense of smell. If there is any article on this subject that you know of I wish you would cite it to me. If not, please put the question in THE JOURNAL and perhaps some one may have something to say through the columns of THE JOURNAL that will throw some light on this very annoying affliction. J. L. CARSON, M.D.

Marriages.

HUGH WILKINSON, M.D., to Miss Ethel Sims, both of Kansas City, Kans., February 21.

DUDLEY TAIT, M.D., San Francisco, to Miss Carrie Cozzens of San Jose, Cal., February 17.

HERBERT B. HANSON, M.D., Hinesburgh, Vt., to Miss Myrtle S. Joy of Barre, Vt., February 16.

JOSEPH R. HAWLEY, M.D., Chicago, to Miss Daisy Miller of Muskegon, Mich., February 11.

WILLIAM H. TUCKER, M.D., Eldorado, Ohio, to Miss Grace W. Hill of Glen Karn, Ohio, February 21.

GEORGE H. WOLLGAST, M.D., to Miss Lucylle E. Hathaway, both of Coffeyville, Kans., Dec. 24, 1903.

ARTHUR E. VINTON, M.D., Muncie, Ind., to Miss Florence Lucille Nixon of Fountain City, Ind., February 16.

EARLE HOOPES INGHAM, M.D., to Miss Josephine R. B. Davis, both of Philadelphia, at Wilmington, Del., February 9.

WILLIAM H. RAYMENTON, M.D., Worcester, Mass., to Miss Grace Lillian Carr of Pasadena, Cal., at Watertown, Mass., February 21.

Deaths.

Franklin Staples, M.D., died at his home in Winona, Minn., February 22, from locomotor ataxia after a lingering illness, aged 70. He studied medicine at Bowdoin Medical College and at the College of Physicians and Surgeons, New York, graduating from the latter in 1862. In the summer of this year he located in Winona. He was a charter member of the Minnesota State Medical Society, and at its third meeting was chosen president. He assisted at the organization of the Winona County Medical Society, and was its first secretary. He became a member of the American Medical Association in 1871, served as a member of the judicial council from 1875 to 1877, and was elected vice-president in 1877. In 1874 he was appointed a member of the Minnesota State Board of Health, and was elected president in 1879, and held this office until his death. From 1883 until 1887 he was professor of practical medicine in the medical department of the University of Minnesota when the faculty constituted the medical examining board of the state. Of late years Dr. Staples gave special attention to sanitation, his contributions in this field being numerous and eminently practical. He served as health officer of the city of Winona for many years, performing the arduous duties of that office in a manner not less creditable to himself than valuable to the community. Dr. Staples enjoyed the confidence and esteem of the medical profession throughout the Northwest, where he was widely known.

Gustav Liebmann, M.D. University of Tübingen, Germany, 1856, who practiced in Baltimore until 1881, and then moved to Boston, where he was a member of the school board, and from 1897 to 1900 professor of diseases of the digestive organs in the College of Physicians and Surgeons, died at his home in Brookline, Mass., February 20, aged 71.

John Dickenson, M.D. Cleveland Medical College, 1857, died at his home in Cleveland, February 19, aged 70. He served throughout the Civil War as surgeon, was health officer of Cleveland for several terms, and at one time surgeon of the police force.

John M. Minick, M.D. Cincinnati College of Medicine and Surgery, 1877, a member, and until January 1, president of the Kansas State Board of Health, died at his home in Wichita, February 22, after an illness of one week, aged 62.

Adolph Opperman, M.D. Germany, 1881, died at his home in Cordell, Okla., February 18, after a protracted illness, aged 61. He was the first physician to locate in Auburn, Neb., and was coroner of Nemaha County for several terms.

William B. Southard, M.D. University of Buffalo, 1859, at one time president of the Kalamazoo Academy of Medicine, died at his home in Kalamazoo, Mich., February 21, from paralysis, after an illness of eight days, aged 81.

Henry Rosenstock, M.D. Jefferson Medical College, Philadelphia, 1896, formerly of Philadelphia, who had been practicing for six weeks in Scranton, Pa., died at his home in Philadelphia, February 23, from Bright's disease.

Sebastian C. Dumm, M.D. Cleveland Medical College, 1872, Columbus, died at the Protestant Hospital, Columbus, February 19, from hemorrhage, a few hours after an operation for gallstones, aged 54.

William Alfred McCoin, M.D. University of Buffalo, 1882, formerly superintendent of the Elizabeth (N. J.) General Hospital, died suddenly at his home in Long Island City, N. Y., February 18.

James V. McLaughlin, M.D. College of Physicians and Surgeons, Baltimore, 1882, died at his home in Lisbon, Ohio, February 19, from consumption, after an illness of several months, aged 45.

August Krehbiel, M.D. University of Munich, Germany, 1878, a member of the consulting staff of the German Hospital, New York City, died at his home in New York City, February 11, aged 64.

Matthew Fletcher Haney, M.D. University of Buffalo, 1850, died at his home in Humberstone, Ont., Dec. 3, 1903, aged 79.

True M. **Gould, M.D.** Dartmouth Medical College, Hanover, N. H., 1855, for sixteen years postmaster of Raymond, N. H., died at his home in that place, February 15, aged 72.

August H. **Trow, M.D.** Castleton (Vt.) Medical College, 1862, in 1859, 1860 and 1872 a member of the Minnesota legislature, died recently at his home in Ethan, S. D., aged 81.

E. Graves **Kittson, M.D.** McGill University, Montreal, 1873; L.R.C.P. London, 1879, died at his home in Hamilton, Ont., February 4, after an illness of ten years, aged 52.

Thomas **Nicholas Drake, M.D.** University of Pennsylvania, Philadelphia, 1856, died at his home in Wilson, N. C., February 13, after a short illness, aged 74.

John **Cooke, M.D.** Cincinnati College of Medicine and Surgery, 1880, died at his home in Hastings, Neb., February 12, after an illness of eleven days, aged 58.

Evan W. **Warfield, M.D.** University of Maryland, Baltimore, 1845, died at his country place, Longwood, near Ellicott City, Md., February 17, aged 78.

Charles F. **Alsentzer, M.D.** University of Pennsylvania, Philadelphia, 1883, died at his home in Philadelphia, February 16, from heart disease, aged 38.

Peter Bryson **Wood, M.D.** Columbian University, Washington, D. C., 1883, died at his home in Baltimore, February 19, from pneumonia, aged 44.

Owen B. **Canfield, M.D.** Kentucky School of Medicine, Louisville, 1877, died at his home in Edgar, Neb., February 22, after a long illness, aged 48.

A. S. **Martin, M.D.** Lind University, Chicago, 1863, surgeon during the Civil War, died at his home in Cleveland, Ohio, February 15, aged 70.

H. William **Burg, M.D.** Jefferson Medical College, Philadelphia, 1877, of Northumberland, Pa., died at a hospital in Philadelphia, February 16.

Martin S. **Leslie, M.D.** Kentucky School of Medicine, Louisville, 1889, died suddenly at his home in Greenup, Ky., a few days ago.

Aimee R. **Schroeder, M.D.** Woman's Medical College of New York Infirmary, 1899, died in New York City, Dec. 25, 1903, aged 46.

Andre L. **Cowles, M.D.** University of Buffalo, 1892, died at his home in Spartansburg, Pa., February 18, from pneumonia, aged 60.

Joseph **Atkins, M.D.** Medical College of Ohio, Cincinnati, 1837, died at his home in West Lafayette, Ind., February 18, aged 92.

Stephen **Eastman Root, M.D.** University of Vermont, Burlington, 1875, died at his home in Rochester, N. H., February 12.

Carl H. **Roese, M.D.** Cooper Medical College, San Francisco, 1894, died at his home in San Francisco, December 12, aged 35.

Samuel D. **Amerman, M.D.,** died at his home in Bartow, Fla., February 14, from heart disease, after a short illness, aged 57.

D. P. **Rubush, M.D.** Indiana, 1897, was found dead from heart disease at his home in Sharpsville, Ind., February 22, aged 56.

Whipple W. **Clarke, M.D.** Jefferson Medical College, Philadelphia, 1882, died at his home in Old Fort, N. C., February 15.

Albert **A. Hanna, M.D.** University of Maryland, Baltimore, 1875, died suddenly at his home in Baltimore, February 25.

Thomas **Norton, M.D.** McGill University, Montreal, 1874, died at his home in Shelburne, Ont., January 14, aged 52.

Green **Moore, M.D.** University of Louisville, 1874, died from paralysis at his home in McKinney, Ky., February 23.

Alvin R. **Davis, M.D.** Jefferson Medical College, Philadelphia, died at his home in Rawlins, Wyo., February 17.

D. M. **Young, M.D.** Ohio, died at his home in Painesville, Ohio, February 21, aged 85.

A. L. **Ferrar, M.D.,** a pioneer of Petaluma, Cal., died January 15, aged 78.

Book Notices.

SOCIAL DISEASES AND MARRIAGE. SOCIAL PROPHYLAXIS. By Prince A. Morrow, A.M., M.D., Emeritus Professor of Genito-urinary Diseases in the University and Bellevue Hospital Medical College, New York. Cloth. Pp. 390. Price, $3.00 net. New York and Philadelphia: Lea Brothers & Co. 1904.

The work before us is timely. It deals with a subject which has to be handled delicately and yet thoroughly to be of use, and the author has certainly succeeded in meeting both these requirements. Every page of the text shows that it has been written by one who knows whereof he speaks. It is a pity that a book like this must be restricted to professional reading, but the physician who possesses it will find in it many points and hints that he can disseminate to his clientele to the very best advantage. A very interesting point discussed is that of the medical secret in regard to venereal disease. The author appears to us to take a judicial position, though he is evidently not too anxious to pronounce a decided opinion. In these days when there is so much agitation to have medical privilege established by law it is well to consider the situation in which the physician may find himself, and which is so well portrayed in this work. If it is the law for a physician to prevent a prospective crime the question of privilege in these cases is certainly not a dubious one. Of course, unnecessary publicity can be avoided and the absolute restrictions made at the present time by the French laws, and we believe also by one or two states of the Union, appears to us not only a moral wrong, but absolutely dangerous to society.

THE PRAXIS OF URINARY ANALYSIS. A Guide to the Chemical Analysis of Urine. With Directions for Preparing Artificial Pathologic Urines for Practicing the Various Tests, and an Appendix on the Analysis of Stomach Contents. By Dr. Lassar-Cohn, Professor in the University of Koenigsberg. Authorized Translation from the Author's Enlarged and Revised Second Edition. By H. W. F. Lorenz, A.M., Ph.D. (Berlin), Late Instructor of Organic Chemistry in the University of Pennsylvania. First Thousand. Cloth. Pp. 58. Price, $1.00. New York: John Wiley & Sons. London: Chapman & Hall. 1903.

This little book, which seems to have a high standing in its own country, will be something of a surprise to many medical students and practitioners in the positiveness with which the author speaks of the uselessness of multiple tests and the advantages of a single one. Thus for albumin he gives only the heating test. For sugar, Trommer's test, etc. He does not include among the abnormal constituents of urine, uric acid and some other substances which are often considered necessary to be sought for either by qualitative or quantitative analyses. So far as it goes, however, the book is a reliable guide.

THE BLUES (Splanchnic Neurasthenia), Causes and Cure. By Albert Abrams, A.M., M.D., (Heidelberg), F.A.M.S., Consulting Physician Denver National Hospital for Consumptives. Illustrated. Pp. 240. Price, $1.50. New York: E. B. Treat & Co. 1904.

The object of the author, he states in his preface, is to call attention to a new and heretofore underscribed variety of nerve exhaustion, which he designates as splanchnic neurasthenia, characterized by paroxysms of depression of varying duration, popularly called "the blues." Fortunately his experience with the condition has taught him that there is no variety of neurasthenia more amenable to treatment than this splanchnic form. The relation of emotional conditions to the abdominal viscera was recognized almost from the earliest antiquity. Depression of spirits and disease below the diaphragm have always been considered as associated, but Dr. Abrams has here brought out a scientific theory and statement of the condition.

DISEASES OF THE NOSE AND THROAT. By Charles Huntoon Knight, A.M., M.D., Professor of Laryngology, Cornell University Medical College. With 147 Illustrations. Cloth. Pp. 423. Price, $3.00 net. Philadelphia: P. Blakiston's Son & Co. 1903.

This work is based on a course of lectures at the Cornell University Medical College, and its arrangement is such as to make it suited for the use of students. Only the essentials of anatomy are described, the details, as the author says in his preface, can be found in more extensive and special works. The treatment of the different forms of disorder are clear and appear to us thoroughly satisfactory. The illustrations are numerous and instructive. The positions taken by the author in matters open to any question are judicious. As a whole the work is an admirable general summary of the subject of nose and throat diseases in a convenient compass and well suited for students' use.

ELEMENTS OF SURGICAL DIAGNOSIS. By A. Pearce Gould, M.S. Lond., F.R.C.S. Eng., Surgeon to the Middlesex Hospital. Third Edition. Revised and Enlarged. Cloth. Pp. 607. Price, $2.00 net. Chicago: W. T. Keener & Co. 1903.

This little work has been thoroughly revised and considerably rewritten for this edition. Certain sections have been

added, such as those on the diagnosis of intracranial complications of middle ear disease and on the diagnosis of abdominal tumors. It also includes modern acquisitions in bacteriology, blood examinations, etc. We notice, however, a few omissions, for example, the surgery of typhoid fever; this is not a new subject, but appears to have been overlooked.

THE PRINCIPLES AND PRACTICE OF SURGERY. Designed for Students and Practitioners. By George Tully Vaughan, M.D. (Univ. of Va.), Assistant Surgeon-General U. S. Public Health and Marine-Hospital Service. Cloth. Pp. 568. Price, $3.50. Philadelphia and London: J. B. Lippincott Company. 1903.

In this volume of a little over five hundred pages practically the entire field of surgery is covered. That it could be covered in that space in only the most superficial manner goes without saying. The text is so condensed that it frequently amounts to little more than mere definitions. The student could obtain from the work a good general idea of what he was expected to study, but as a rule sufficient detail is lacking to guide the general practitioner in his work.

THE DECENNIAL PUBLICATIONS, University of Chicago. The Distribution of Blood-vessels in the Labyrinth of the Ear of Sus Scrofa Domesticus. By George W. Shambaugh, Instructor in the Anatomy of the Ear, Nose and Throat. Printed from Vol. X. Paper. Price, $1.25. Chicago: The University of Chicago Press. 1903.

This monograph is an elaborate description, beautifully illustrated, of the circulation in the labyrinth of the pig's ear. The author describes his methods and findings in detail and sums up the points of special interest. The work is an interesting and practical contribution to special anatomy and gives evidence of most painstaking and thorough investigation of its subject.

CLINICAL EXAMINATION OF THE URINE AND URINARY DIAGNOSIS. A Clinical Guide for the Use of Practitioners and Students of Medicine and Surgery. By J. Bergen Ogden, M.D., Formerly Instructor in Chemistry, Harvard University Medical School, Boston. Second Revised Edition. Illustrated, Including 11 Plates; 9 of Them in Colors. Cloth. Pp. 418. Price, $3.00 net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

This is a useful general treatise on urinary analysis. The author has made a few changes in regard to certain tests and taken up one or two subjects that were not noticed in the former work, such as cryoscopy. Otherwise the book, in the main, is the same as the former edition.

THE NUTRITION OF THE INFANT. By Ralph Vincent, M.D., Member of the Royal College of Physicians. Cloth. Pp. 295. Price, $3.50. New York: William Wood & Co. 1904.

Works on infant feeding are one of the necessities of the present day and are essential to every working physician's library. Dr. Vincent has prepared a treatise which, while it may not supersede other works like those of Judson and Gittings, nevertheless will be found useful as covering the same points in perhaps a somewhat different way. The author's dedication to Dr. Thomas Morgan Rotch shows how much he recognizes what is due to American work in this line.

A TEXT-BOOK OF MODERN MATERIA MEDICA AND THERAPEUTICS. By A. A. Stevens, A.M., M.D., Lecturer on Physical Diagnosis in the University of Pennsylvania. Third Edition. Greatly Enlarged, Rewritten and Reset. Cloth. Pp. 663. Price, $3.50 net. Philadelphia: W. B. Saunders & Co. 1903.

In this edition Stevens has rearranged the classification and rewritten the work to bring it up to the modern advances of the subject.

Miscellany.

Medicine for the Physician.—"Wholesome exercise, in the free air, under the wide sky, is the best medicine for body and spirit." This truism is again recommended for the hospital interne and the city physician whose practice is largely limited to office consultations.

A Dirty Office.—The *Medical Recorder* (Shreveport, La.) urges physicians to set an example for cleanliness and have neat offices. It says: "The average physician's office, especially in the country villages, usually looks as though it had not had a good cleaning for months."

Rubber and Linen Gloves.—A German journal recommends the use of linen gloves drawn over rubber gloves during an operation. The instruments do not slip as easily on the linen and do not puncture it, while the rubber beneath prevents the escape of germs from the skin. Is this a good suggestion or is this carrying the matter of gloves too far? Is not the surgeon's skilled sense of touch one of his most valuable accomplishments? If not, a modified form of boxing gloves would absorb the germs from the skin and prevent infection.

Exhibit of Medical Journals at the St. Louis Fair.—The editorial fraternity will be much interested in the proposed exhibit of medical journalism at the St. Louis Exposition this summer. Several of our contemporaries have commented on this matter, expressing the value of such an exhibit. In a special department all the medical publications of the State of Missouri are to be exhibited. Space has been allotted in the Palace of Liberal Arts, and Dr. Charles Wood Fassett of St. Joseph, Mo., is in charge of the exhibit. There will be much instruction in an examination of this exhibit.

The Contagiousness of Scarlet Fever.—An interesting item is going the rounds of the medical press, in which comment is made on an article which was abstracted in THE JOURNAL two years ago. Aaser of Christiania, finding many cases of scarlet fever infection from nose and throat secretions after desquamation had entirely ceased, urged that this source of infection be more carefully guarded against. It is well to give general publicity to this caution and to ask for further observations, but in these two years doubtless Aaser can add some facts to those given at the time of his original publication.

A Medical Professor of Anatomy in Art.—Dr. P. Richer of Paris is an accomplished sculptor, whose works have won him many medals. His literary articles on anatomy and pathology in art and on various art questions have been doubly crowned with prizes, one from medical and the other from art societies. Last year he was appointed professor of anatomy at the school of fine arts, the famous "Beaux-Arts," and his methods of teaching are effecting a revolution in the routine of art instruction. He has the students draw first the bones, then the muscles, separately, and then he has them draw them in place from the live model. The students thus learn anatomy with their crayon in hand, as the medical student learns it with the knife.

Pithy Papers.—The editor has attended several meetings for the organization of county societies, and has been struck by one thing more particularly than any other—the desire of the physicians to get together to form such societies, to omit the long, tiresome papers compiled from text books or journals, and to confine the work of the society meetings to short, pithy papers or reports that deal with practical questions and actual experiences. That is just what we all really need. Some men seem to have the diabolic faculty of putting together a mass of stuff making a paper of great length, which is painful even for the printer to read, when everything that they had to say could have been said in one-tenth of the space.—*California State Journal of Medicine.*

Physical Development of Mexican Children.—R. Carrillo publishes in the *Revista Medica*, XIV, Nos. 12 to 18, the results of examination of several hundred children among the lower classes of the city of Mexico. He found only a single instance of rachitis among 500 examined. The size and weight of the children, from birth to the sixth year, is less than the corresponding figures for the European child. The teeth do not develop so early; dentition extending over thirty-six months in extreme cases, the average being thirty months, while in Europe the average is eighteen months, with twenty-four as the extreme. Co-ordinated movements commence at about the same age in both Mexican and European children, apparently not influenced by the backward development of the former. He gives detailed tables of the various groups of children examined.

Medical Societies to Cross-Examine So-called Experts.—Would the expert evidence in the trials be just what it is if the medical societies were in the habit of calling their members to the bar of an expert public opinion and demanding that they state, fully state, all the evidence, facts and symptoms, which they found, and the reasoning by which they reached the conclusion which they have embodied in their testimony as ex-

perts? Imagine the state of mind of two practitioners who have testified on the opposite sides of some damage suit if they were obliged to file with the court a statement of the symptoms and objective evidence on which they based their opinions, and if after the trial and verdict this were sent to the medical examining board of the state, and then the experts were called on to explain. If this thing were to happen about twice, would not a change wonderful to contemplate come over the "expert medical testimony" given in such damage suits?—*Medical Examiner and Practitioner.*

Professional Charges—The Patient's Ability to Pay.—It is often difficult for the physician to make his charges equitable on the basis of the financial condition of the patient. Dr. Ernest A. Hall, Vancouver, B. C., suggests to the *Dominion Medical Monthly* a table as a guide for fees. He intends this schedule to apply only to patients in moderate circumstances, and when the income reaches $200 per month he recommends that the amount of the fee be left wholly to the discretion of the physician, but the table could be extended to include all amounts. In the first column the figures represent in dollars the income of the family or of the patient. At the top of the other columns the numbers, 1, 2, 3, etc., indicate the number of persons dependent on the income, and the figures in the columns below are percentages. These percentages indicate what proportion of the usual fee should be charged. For example, if $100 would be the regular charge for a certain series of visits or for a certain operation for which a man

Monthly Income.	Number Dependent on Income.								
	1	2	3	4	5	6	7	8	9
$150	100%	100%	100%	100%	100%	100%	90%	80%	70%
140	100	100	100	100	100	90	80	70	60
130	100	100	100	100	90	80	70	60	50
120	100	100	100	90	80	70	60	50	40
110	100	100	90	80	70	60	50	40	30
100	100	90	80	70	60	50	40	30	20
90	90	80	70	60	50	40	30	20	10
80	80	70	60	50	40	30	20	10	
70	70	60	50	40	30	20	10		
60	60	50	40	30	20	10			
50	50	40	30	20	10				
40	40	30	20	10					
30	30	20	10						
20	20	10							
10	10								

with a salary of $120 per month is to pay, he having a wife and five children, opposite the monthly income of $120, in the column under 7 (man, wife and five children made a total of 7 dependent on the income) is found the percentage of 60. Taking 60 per cent. of $100 gives $60 to be charged. Thus the table establishes a ratio between the income and the number dependent thereon, or, in other words, the assets of the family are divided by the liabilities, and thus is derived that most important fact—the ability to pay. The table may be subject to a number of criticisms, but we reproduce it herewith for whatever suggestiveness or value it may have for our readers.

Lay Opinions on Malpractice.—In the malpractice suit against Dr. Burrows of Marshalltown, says the *Iowa Medical Journal*, Judge Burnham, in taking the case away from the jury, had the following to say: "I think the plaintiff and her husband should rise up and bless this man for having saved the life of the plaintiff in this case. The evidence here clearly shows this defendant has exercised the greatest care and the greatest caution, and has brought to bear skill at least equal to what is required of physicians of the community in which he practices. I can not sit here and say this defendant has been guilty of conspiracy with his brother physicians to protect himself against a claim made in this case. I do not believe it." The editor of the city paper in commenting on the verdict makes some pertinent remarks that are worth preserving, thus: "As a general rule damage cases against reputable physicians and surgeons for malpractice will fail to materialize evidence whenever they appear in court, and the action of Judge Burnham this week will be approved by the public generally. The profession of surgery is a life-saving business. It would be a calamity if the surgeons should quit operating, and it follows that if a surgeon or physician is known to be practicing his profession with success in a majority of cases, he should not be mulcted for damages, even though an operation should fail or a patient be dissatisfied. He does not guarantee success and should not be held for anything except incompetence or criminal neglect. Anything else would be asking a practitioner to assume risks far in excess of the premiums to be derived from his business, and the public welfare would not be favored by a raise in doctors' rates to insure such risks. However, the provisions of the law are very necessary for the protection of the public from the criminal incompetency of the quack, hence it remains largely with the good judgment of the court to see that justice is done, a duty that Judge Burnham seems to have discharged with ability."

State Boards of Registration.

COMING EXAMINATIONS.

Board of Registration in Medicine for Massachusetts, State House, Boston, March 8-9. Secretary, Edwin B. Harvey, M.D., State House, Boston.

Committees of Examination of Connecticut, New Haven, Hartford and Waterbury, March 8. Secretary, Prof. C. A. Lindsly, New Haven.

Maine Board of Registration of Medicine, Portland, March 23. Secretary, A. K. P. Meserve, M.D., Portland.

Regular Board of Medical Examiners for Georgia, Atlanta, March 30. Secretary, I. H. Goss, M.D., Athens.

State Board of Examiners of Alabama, Montgomery, 1st to 10th of each month. Chairman, W. H. Sanders, M.D., Montgomery.

Arizona Board of Medical Examiners, Phoenix, April 4. Secretary, Wm. Duffield, M.D., Phoenix.

Utah State Board of Medical Examiners, Salt Lake City, April 4. Secretary, R. W. Fisher, M.D., Salt Lake City.

Board of Medical Examiners of Montana, Helena, April 5. Secretary, Wm. C. Riddell, M.D., Helena.

North Dakota State Board of Medical Examiners, Grand Forks, April 5. Secretary, H. M. Wheeler, M.D., Grand Forks.

Board of Medical Examiners of the State of California, City Hall, San Francisco, April 5. Secretary, Geo. G. Gere, San Francisco.

Idaho State Board of Medical Examiners, Boise, April 6. Secretary, R. L. Nourse, M.D., Hailey.

Minnesota State Board of Medical Examiners, State Capitol Building, St. Paul, April 5-7. Secretary, C. J. Ringnell, M.D., Minneapolis.

Rhode Island State Board of Health, State House, Providence, April 7-8. Secretary, Gardner T. Swarts, M.D., Providence.

State Medical Board of the Arkansas Medical Society, Little Rock, April 12. Secretary, J. P. Runyan, M.D., Little Rock.

Missouri State Board of Health, Kansas City, April 12-14. Secretary, W. F. Morrow, M.D., Kansas City.

West Virginia State Board of Health, Clarksburg, April 12-14. Secretary, Hugh A. Barbee, M.D., Point Pleasant.

Vermont State Board of Medical Censors, Y. M. C. A. Building, Rutland, April 13-14. Secretary, S. W. Hammond, M.D., Rutland.

Board of Medical Supervisors of the District of Columbia, Washington, April 14. Secretary, Wm. C. Woodward, M.D.

Board of Medical Examiners for the State of Texas, Austin, April 21-23. Secretary, M. M. Smith, M.D., Austin.

No Reciprocity Between New York and Pennsylvania.—The Medical Council of Pennsylvania, at its session in Harrisburg, Feb. 13, 1904, took the following action:

WHEREAS, On careful examination, we find that the standard of acquirements of the medical examination of the State of New York is not substantially the same as that of the medical examination of the State of Pennsylvania; therefore, be it

Resolved, 1. That on account of the disparity existing as to the acquirements in the states of New York and Pennsylvania, New York licenses shall not be accepted as the authority for granting Pennsylvania licenses under the provision of the act approved May 18, 1893.

Resolved, 2. That a copy of this action be sent to THE JOURNAL of the American Medical Association and to the dean of each medical college in the State of Pennsylvania.

California Report.—Dr. George G. Gere, secretary of the Board of Medical Examiners of the State of California, reports that 90 questions were asked on 9 subjects in the written examination given at San Francisco, Dec. 1-3, 1903, and that out of 68 applicants, 46 passed, 5 were conditioned and 17 failed entirely. The percentage required was 75. The questions are given below. The colleges named below were represented by applicants who were graduates in the years stated, and who received the grades stated. There was also a licentiate of the Illinois State Board of Health of the year 1898, who received a grade of 83.2.

PASSED.

Colleges.	Years of Graduation and Grades
University of California,	(1900) 84.1, (1902) 86.1, (1903) 76.7, 83.4, 83.1.
College of P. and S., San Francisco,	(1903) 89.8, (1902) 78.8.
Cooper Med. Coll., San Francisco,	(1903) 78.5, 75.4, 83.5, 78.3, 77.3.
Hahnemann Med. Coll., California,	(1903) 82.3, 80.7, 81.5, 77.6, 81.7, 77.2.
Northwestern Univ., Chicago,	(1902) 82.3, (1903) 83.4, 80.1.
Coll. of P. and S., Chicago,	(1903) 83.8, (1901) 77.1.
University of Pennsylvania,	(1889) 80.3, (1893) 91.3, (1900) 84.8.
University of Michigan,	(1901) 83.4, (1894) 82.5.
Harvard University,	(1902) 82.6, (1891) 84.7.
University of Iowa,	(1883) 75.4, (1896) 77.1.
Detroit College of Medicine,	(1876) 75, (1902) 78.1.
University of Minnesota	(1903) 75.5
University of Southern California	(1903) 78.4
Amer. Med. Miss. Coll., Chicago	(1903) 77.1
Royal College, Surgeons, England	(1895) 85.3
McGill University	(1899) 80.6
Jefferson Medical College	(1901) 81.1
Medical College of Ohio	(1880) 85.2
Johns Hopkins University	(1902) 78.5
Bellevue Hospital Medical College	(1869) 75.7
Albany Medical College	(1887) 81.5

FAILED.

American Medical Missionary College	(1902) 70.2
Long Island Hosp. Med. Coll., New York	(1899) 64.0
University of South Tennessee	(1901) 73.4
University of Denmark, Copenhagen	(1894) 66.7
Coll. of P. and S., Chicago	(1895) 68, (1901) 68.7
Cooper Med. Coll., California	(1903) 72.3, 74.2
Detroit College of Medicine	(1896) 74.5
Meharry Medical College, Tennessee	(1893) 56.8
Hahnemann Medical College, California	(1903) 73.5
Faculty of Paris, France	(1891) 69.8
Rush Medical College, Chicago	(1890) 63.7
Missouri Medical College	(1889) 67.6
University of Vermont	(1890) 69.1
Omaha Medical College	(1899) 68.4
Coll. of P. and S., California	(1902) 59.5

CONDITIONED IN PATHOLOGY.

University of Michigan	(1903) 77.7
Coll. of P. and S., Baltimore	(1901) 75.8
Cleveland Hosp. Coll., Ohio	(1886) 79.7
Hahnemann Med. Coll., California	(1903) 75.4
American Medical College, Missouri	(1897) 75.0

PRACTICE OF MEDICINE.

(The three sets are the regular, homeopathic and eclectic, and the applicant may answer one set.)

1. Symptoms and treatment of typhoid fever. 2. What is the difference between intermittent and remittent fever? 3. Symptoms and treatment of scarlet fever. 4. Symptoms and treatment of measles. 5. Symptoms and treatment of erysipelas. 6. Diagnosis and treatment of variola. 7. Causes and diagnosis of gastric ulcer. 8. Treatment of tapeworm. 9. Diagnosis and treatment of acute Bright's disease. 10. Causes and treatment of cystitis.

1. Diagnose and treat a case of scarlet fever, giving indications for each drug. 2. What is lumbago? Suggest treatment. 3. Differentiate a pneumonia from pulmonary congestion. 4. Give treatment of erysipelas of face. 5. Give three causes of constipation, and give treatment for each. 6. What is chorea? Give your method of treatment. 7. Describe a case of gastric ulcer. 8. How would you treat a case of cystitis? 9. Patient restless, high temperature following defined chill, skin dry, severe muscular aching, coryza, headache. Give diagnosis and treatment. 10. Give symptoms and treatment of spasmodic croup.

1. What are the lesions commonly found, or that may occur in the natural (clinical) history of diabetes mellitus? Give the treatment of diabetes mellitus. 2. Give the etiology of biliary calculi. Describe the symptoms and the treatment of obstruction of the ductus communis. 3. Give a motor, a sensory and an optical symptom of tabes dorsalis. Locate the essential lesion. 4. Describe the symptoms of any one disease of the pancreas. 5. Enumerate and describe the common types of malarial intermittent fever. Give the etiology and the treatment. 6. Give the differential diagnosis of intussusception of small intestine and acute appendicitis. 7. Give the physical signs of moderate effusion in the left pleural cavity. 8. What are the more frequent causes of endocarditis? Describe the physical signs of a mitral insufficiency. 9. Give the physical signs and describe the symptoms that would lead to the diagnosis of tuberculosis of the lungs at an early stage (the period of invasion). 10. Describe the blood changes in anemia (secondary) and pernicious anemia (primary).

CHEMISTRY AND TOXICOLOGY.

(Answer any 10 and only 10.)

1. Describe a method of preparing oxygen. 2. Define the terms distillation, sublimation; give examples of each. 3. Mention five elementary substances commonly used in medicine in an uncombined state. 4. State two laws governing chemical combinations. 5. Explain the nomenclature of binary compounds. 6. Describe a galvanic cell; explain the chemical changes occurring during action. 7. What is a compound radical? Give two examples. 8. Give the chemical names for (1) tartar emetic, (2) cream of tartar, (3) Glauber's salts, (4) copperas, (5) sugar of lead. 9. What is chloroform? How is it made? 10. What is glycerin? How is it classified chemically? 11. Give two tests for morphin. 12. What is the antidote for arsenic poisoning? Why? 13. What the antidote for poisoning by lead acetate? Why? 14. Describe in detail a test for sugar in urine. 15. What is the normal reaction of fresh urine? Explain the effect of decomposition on this reaction.

MATERIA MEDICA (HOMEOPATHIC).

1. What symptoms determine choice of aconite in any form of acute disease? 2. Differentiate the cough symptoms of belladonna, sticta and ipecac. 3. Give an outline of the action of opium. 4. Differentiate apis and rhus in the treatment of erysipelas. 5. Give three characteristic symptoms of lachesis and what is the character of its hemorrhage? 6. Give the indication for bryonia, and colchicum in rheumatism. 7. Give the action of ergot on the spinal cord. 8. Differentiate iris, glonoin and gelsemium in headache. 9. Give guiding symptoms of sepia and helonias in female diseases. 10. Give the bowel symptoms of merc. corr.

PATHOLOGY.

1. Discuss immunity, giving special attention to acquired immunity, to toxin immunity, and to the theories of the nature of immunity. 2. Under what conditions occur a physiologic leukocytosis? Under what pathologic conditions would you expect to find a polymorphonuclear leukocytosis? A lymphocytosis? 3. Name three processes marked by retrogressive changes in tissues. Three marked by progressive changes. 4. Illustrate by a drawing the microscopic structure of an adenoma, an adenocarcinoma and a lymphosarcoma. 5. What is the significance of hyaline casts in urine? Of granular casts? 6. Name two sequelæ of asthma and tell how they are brought about. 7. Give the pathology of embolus. Of thrombus. 8. What macroscopic pathologic conditions would you expect to be able to demonstrate in a subject where death was due to parenchymatous nephritis and its complications? 9. Examination of pathologic specimens. 10. Examination of *x*-ray plates.

MATERIA MEDICA AND THERAPEUTICS.

1. Name five drugs which by their action on the vasomotor centers dilate peripheral blood vessels. Five that contract. 2. Explain the action of counterirritants, and give three that are safe to apply over large areas. 3. Give source, preparations with doses and therapeutics of salicylic acid. 4. Give action and therapeutics of diphtheria antitoxin. What conditions would cause you to increase or diminish the quantity given in the course of treatment? 5. What is the physiologic action of arsenic, given in small doses three times a day? Given in full medical doses three times a day? What per cent of Fowler's solution is arsenious acid? 6. Compare the physiologic action of tannic acid with gallic acid. 7. Give two formulæ for preparing nutriment for rectal feeding. 8. Write a prescription containing two drugs beside the vehicle, for acute bronchitis, marked by a dry harassing cough. Use no abbreviations. 9. Give the physiologic action of amyl nitris, and name three drugs that are largely antagonistic to this action. 10. What would you consider a safe initial adult dose of sulphate of strychnia, sulphate of morphia, chloral hydrate, sulphate of hyoscyamin and the hydrochlorate of pilocarpin?

MATERIA MEDICA (ECLECTIC).

1. Name three heart tonics. 2. What are the medical properties of ammonium carbonate. 3. What are tinctures, infusions and decoctions. 4. What is meant by the term hydragogue? 5. Give the therapeutic properties of podophyllin. 6. In prescribing iron what form do you prefer, and why? 7. What precautions are necessary in prescribing strychnia, opium and lobelia? 8. Define narcotics, laxatives, antispasmodics, giving example of each. Give specific indications for gelsemium, belladonna, apis. 10. Give medical properties of digitalis with principal organs influenced.

SURGERY.

1. Describe the lymphatic involvement in an advanced case of carcinoma of the stomach, and state the significance of such from the standpoint of operative treatment. 2. Describe in detail the technic of saline intravenous injections. 3. Describe and give treatment of glaucoma. 4. Differential diagnosis and treatment of varicocele. 5. Describe in detail the methods of service in combating complications occurring during chloroform anesthesia. What is Laborde's method of producing artificial respiration? 6. Name varieties and give treatment of goiter. 7. Describe in detail Schleich's method of local anesthesia. 8. Define the following terms: Enteroplosis, pyelophlebitis, cholecystogastroenterostomy. ment of glaucoma. 4. Differential diagnosis and treatment of foreign bodies of the bladder in the male and female. 10. Differential diagnosis and treatment of cancer of the rectum.

OBSTETRICS.

1. What is vicarious menstruation? What is the menopause, and what symptoms herald its approach? 2. Define extrauterine pregnancy. Give the symptoms, differential diagnosis, classification and management of the same. 3. Give the natural causes, symptoms and the management of a case of abortion during the early months of pregnancy. 4. What is "quickening," and at what period of pregnancy is it usually noticed? Describe fetal heart sounds, their rate, when and where are they best heard? 5. What are the causes of rupture of the uterus in labor? Give the signs, symptoms, prognosis and management of both mother and child. 6. What is version? Give the varieties, application and technic of each. 7. Give the stages of labor and describe what takes place during each stage. 8. What is the best method of delivering the placenta? 9. What are the principal congenital defects of the new-born child. 10. What is phlegmasia alba dolens? Give symptoms, treatment and results.

BACTERIOLOGY.

1. Describe the bacteriologic methods of service in the clinical diagnosis of typhoid fever. 2. With what micro-organisms may Koch's bacillus be confounded? 3. Describe the bacteriologic diagnosis of diphtheria, and state the action of the diphtheria bacillus. 4. Define the following terms: Hemolysis, chemiotaxis, obligatory aerobes and facultative anaerobes. 5. Describe Metchnikoff's theory of immunity, and state its value as an explanation of the facts of immunity. 6. Name three chromogenic bacteria. 7. Describe briefly the principles of the Pasteur treatment of rabies. 8. Describe method of examining pus. 9. Examination of cultures. 10. Examination of smears.

ANATOMY.

(Answer any 10 questions, but no more.)

1. What is the foramen magnum, and what does it transmit? 2. Describe the mastoid portion of the temporal bone, giving its surgical importance. 3. Give number and name of the various regions of the skull. 4. Bound the pelvic cavity and name the contents. 5. How is collateral circulation established after ligation of the common carotid? 6. In what do the pulmonary veins differ from others? 7. What composes the portal system of veins?

8. Name the divisions of the brain. 9. Give the gross anatomy of the liver. 10. Describe the hip joint and name the ligaments. 11. Describe the pericardium as a structure, and give the blood and nerve supply. 12. What is the pleura? Give its reflections. 13. Name the biliary ducts and briefly describe each. 14. What is the pharynx, and what openings communicate with it? 15. What is the popliteal space, and what does it contain?

PHYSIOLOGY.

1. What are the causes of the first and second sounds of the heart? 2. Describe the difference in function of the afferent and efferent nerves. 3. Define the digestive process. 4. What is meant by tidal, complemental, reserve and residual air? 5. How do the products of digestion find their way into the venous blood? 6. What is the origin and use of glycogen? 7. What is the function of the ninth cranial nerve? 8. What are the functions of the skin? 9. What is the function of the optic thalami? 10. Where is the location of the center for articulate speech.

The Public Service.

Army Changes.

Memorandum of changes of stations and duties of medical officers, U. S. Army, for the week ending Feb. 27, 1904:

Girard, Alfred C., asst.-surgeon general, assigned to duty as chief surgeon, Department of California.

Torney, Geo. H., deputy surgeon general, relieved from temporary duty as chief surgeon, Department of California, and assigned to duty in command of U. S. Army General Hospital, Presidio of San Francisco.

Kendall, Wm. P., surgeon, relieved from duty at U. S. Army General Hospital, Presidio of San Francisco, and ordered to Ord Barracks, Cal., for duty.

Waterhouse, Samuel M., asst.-surgeon, relieved from duty on the transport *Logan* and from further duty in the Philippine Division, and ordered to Fort Worden, Wash., for duty.

Patton, Irvine W., asst.-surgeon, relieved from further duty at Fort Hamilton, N. Y., and is assigned to duty as surgeon on transport *McClellan*.

Waterhouse, Samuel M., asst.-surgeon, granted two months' leave of absence.

Vaughan, Milton, contract surgeon, arrived on the *Logan*, at San Francisco, February 12, for treatment.

Wells, Francis M., contract surgeon, arrived on the *Logan* at San Francisco February 12, on two months' leave of absence from the Division of the Philippines. This leave he availed himself of February 25, after accompanying troops to Columbus Barracks, Ohio.

Wythe, Stephen, contract surgeon, relieved from duty February 18, at the Presidio of San Francisco, and assigned to duty as transport surgeon of the *Buford*.

Foster, Douglas E., contract dental surgeon, left Madison Barracks, N. Y., February 24 for his proper station, Fort Hancock, N. J.

Chambers, Wm. H., contract dental surgeon, arrived February 19, at Atlanta, Ga., for duty in the Department of the Gulf.

Hughes, Leonard S., contract surgeon, on leave of absence from the Division of the Philippines; extension of one month granted.

Jordan, Edward H., contract surgeon, on leave of absence from the Division of the Philippines; extension of one month granted.

Navy Changes.

No changes in the medical corps of the Navy for week ending Feb. 27, 1904.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service, for the seven days ended Feb. 25, 1904:

Stoner, G. W., surgeon, four days' leave of absence from Feb. 24, 1904, under Paragraph 189 of the Regulations.

Anderson, J. F., P. A. surgeon, granted leave of absence for two days from February 18, on account of sickness.

Stansfield, H. A., and McClintic, T. B., asst.-surgeons, to report to chairman of examining board at Washington, D. C., March 9, 1904, for examination to determine their fitness for promotion to the grade of P. A. surgeon.

Berry, T. D., assistant surgeon, directed to rejoin station at Louisville, Ky., on the return of Surgeon G. M. Guiteras.

Herty, F. J., pharmacist, granted leave of absence for four days from Feb. 14, 1904, under Paragraph 191 of the Regulations.

PROMOTIONS.

Geddings, H. D., P. A. surgeon, commissioned as surgeon, to rank as such from Nov. 23, 1903.

Wertenbaker, C. P., P. A. surgeon, commissioned as surgeon Feb. 16, 1904.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine Hospital Service, during the week ended Feb. 26, 1904:

SMALLPOX—UNITED STATES.

California: San Francisco, Feb. 7-14, 5 cases.
District of Columbia: Washington, Feb. 13-20, 6 cases.
Florida: Jacksonville, Feb. 13-20, 5 cases.
Georgia: Liberty County, Feb. 12, 7 deaths.
Illinois: Danville, Feb. 13-20, 3 cases.
Louisiana: New Orleans, Feb. 13-20, 1 case imported.
Maine: Calais, Feb. 18, 5 cases.
Maryland: Baltimore, Feb. 13-20, 1 case.
Michigan: Detroit, Feb. 13-20, 2 cases, 1 death.
Missouri: St. Louis, Feb. 13-20, 5 cases.
New Hampshire: Manchester, Feb. 13-20, 1 case.
New Jersey: Trenton, Feb. 13-20, 7 cases.
New York: Feb. 13-20, New York, 3 cases, 1 death; Niagara Falls, 5 cases.
Ohio: Cleveland, Feb. 12-19, 1 case.
Pennsylvania, Feb. 6-13, Butler, 1 case; Williamsport, 1 case; Carbondale, Feb. 14-21, 1 case; Feb. 13-20, Johnstown, 4 cases; Philadelphia, 49 cases, 13 deaths; Pittsburg, 2 cases, 1 death; Titusville, 1 case.
Tennessee: Feb. 13-20, Memphis, 31 cases; Nashville, 7 cases.
Utah: Salt Lake City, Feb. 6-13, 1 case.
Virginia: Danville, Feb. 6-13, 2 cases.
Wisconsin: Milwaukee, Feb. 13-20, 11 cases.

SMALLPOX—INSULAR.

Hawaii: Honolulu, Feb. 4, 1 case on U. S. T. *Logan*.

SMALLPOX—FOREIGN.

Austria: Prague, Jan. 23-30, 3 cases.
Brazil: Pernambuco, Jan. 1-15, 39 deaths; Rio de Janeiro, Jan. 17-24, 24 cases, 27 deaths.
Canada: Quebec, Feb. 6-13, 1 case; Tower Hill, N. B., Feb. 15, 2 cases.
Colombia: Barranquilla, Jan. 27-Feb. 2, 5 deaths.
France: Marseilles, Jan. 1-31, 29 deaths; Paris, Jan. 30-Feb. 6, 31 cases, 2 deaths.
Great Britain: Jan. 30-Feb. 6, Edinburgh, 17 cases, 1 death; Hull, 3 cases; Manchester, 3 cases; Newcastle-on-Tyne, 2 cases, 1 death; Nottingham, 11 cases; South Shields, 1 case; Sunderland, 1 case; Glasgow, Feb. 5-12, 46 cases, 2 deaths; London, Jan. 23-30, 4 cases; Sheffield, Jan. 23-Feb. 6, 3 cases.
India: Bombay, Jan. 19-26, 7 deaths; Karachi, Jan. 17-24, 2 cases, 1 death.
Mexico: City of Mexico, Jan. 31-Feb. 7, 4 cases, 3 deaths.
Netherlands: Amsterdam, Jan. 30-Feb. 6, 3 cases.
Russia: Moscow, Jan. 16-23, 5 cases, 4 deaths; St. Petersburg, Jan. 23-30, 11 cases, 3 deaths.
Spain: Santander, Feb. 1-8, 5 cases.
Turkey: Smyrna, Jan. 17-31, 5 deaths.

YELLOW FEVER.

Brazil: Rio de Janeiro, Jan. 17-24, 3 cases, 1 death.
Cuba: On Nor. bk. Eugen from LaGuaira, Mez., wrecked on South coast Feb. 16, 7 cases, 5 deaths.
Mexico: Jan. 31-Feb. 13, Merida, 1 case, 4 deaths; Progreso, 1 case; Vera Cruz, Feb. 6-13, 1 case, 1 death.

CHOLERA—INSULAR.

Philippine Islands: Manila, Jan. 2-9, 4 cases, 4 deaths.

CHOLERA—FOREIGN.

India: Calcutta, Jan. 8-23, 38 deaths.
Turkey in Asia: Diarbekir, Jan. 9, 1 death; Kerbela, Jan. 11-12, 5 cases, 5 deaths.

PLAGUE—UNITED STATES.

California: San Francisco, Feb. 12-14, 2 deaths.

PLAGUE—FOREIGN.

Brazil: Pernambuco, Jan. 1-15, 1 death; Rio de Janeiro, Jan. 17-24, 8 cases, 6 deaths.
India: Bombay, Jan. 19-26, 231 deaths; Calcutta, Jan. 8-23, 23 deaths; Karachi, Jan. 17-24, 8 cases, 7 deaths; Madras, Jan. 16-22, 1 death.
Peru: San Pedro, Feb. 20, a few cases.
Russia: Cronstadt, Jan. 20, 1 death, laboratory case.

Medical Organization.

Iowa.

LUCAS COUNTY MEDICAL SOCIETY.—Physicians of the county met at Chariton, February 13, and with the aid of Dr. David C. Brockman, Ottumwa, councilor for the Sixth District, organized a county society on the standard plan, adopted the constitution and by-laws recommended by the state society, and elected the following officers: President, Dr. Albert L. Yocum, Chariton; vice-president, Dr. David Q. Storie, Jr., Chariton; secretary-treasurer, Dr. John H. Stanton, Chariton; delegate to state society, Dr. Herbert H. Nelson, Russell, and committee on public health and legislation, Drs. John H. Stanton, Edgar L. Field and David Q. Storie, Jr., all of Chariton.

Kentucky.

SEVENTH COUNCILOR DISTRICT.—Dr. James G. Carpenter, Stamford, councilor for this district, reports that he has organized eleven of the twelve counties which constitute his district.

North Dakota.

SIXTH JUDICIAL DISTRICT MEDICAL SOCIETY.—The physicians of this district have organized with the following officers: President, Dr. Francis R. Smyth, Bismarck; vice-president, Dr. George E. Chamberlain, Bismarck, and secretary and treasurer, Dr. Frederick B. Strauss, Glen Ullin.

Texas.

RED RIVER COUNTY MEDICAL SOCIETY.—Twenty physicians of the county met at Clarksville, February 15, and organized a county society with the following officers: Dr. John C. Foster,

Clarksville, president; Dr. James C. Durrum, Clarksville, vice-president; Dr. W. Newlin Watson, Clarksville, secretary and treasurer, and Drs. Henry R. Smith, Detroit, Charles T. Clark, Clarksville, and M. C. McNew, censors.

MARION COUNTY MEDICAL SOCIETY.—Pursuant to a call issued by Dr. Holman Taylor, councilor of the Fifteenth (Northeast) District, physicians of the county met at Jefferson and organized a medical society with an initial membership of 7, and the following officers: Dr. John A. R. Moseley, president; Dr. Robert L. Armistead, vice-president; Dr. Rogers Cocke, secretary and treasurer, and Drs. Robert A. Sterrett, Albert G. Clopton, and Archibald A. Terhune, censors, all of Jefferson.

Wisconsin.

GRANT COUNTY MEDICAL SOCIETY.—This society, which was reorganized in July last (THE JOURNAL, xli, page 384), received its charter from the state society January 4.

Society Proceedings.

NATIONAL LEGISLATIVE COUNCIL.

Meeting held at Washington, D. C., Feb. 11, 1904.

Dr. C. A. L. Reed in the Chair.

The meeting was called to order by Dr. Chas. A. L. Reed, Cincinnati, chairman of the National Legislative Committee of the American Medical Association. The following were present: Dr. Chas. A. L. Reed, Ohio; Dr. J. R. Currens, Wisconsin; Dr. Wm. E. Anderson, Virginia; Drs. J. B. Sanford and S. D. Van Meter, Colorado; Dr. R. E. Conniff, Iowa; Dr. E. J. McKnight, Connecticut; Dr. R. T. Sloan, Missouri; Dr. Henry Beates, Jr., Pennsylvania; Dr. E. E. Harris, New York; Dr. R. A. Marmion, U. S. N.; Dr. James Evans, South Carolina; Dr. J. W. Bovée, District of Columbia; Dr. Walter Wyman, U. S. Public Health and Marine-Hospital Service; Dr. J. T. Wrightson, New Jersey; Surgeon-General O'Reilly, U. S. A.; Dr. Edie, U. S. A.; Dr. W. C. Borden, U. S. A.; Dr. Chas. MacLachlan, New Rockford, S. D.; Dr. W. H. Sanders, Montgomery, Ala.

On motion of Dr. S. D. Van Meter it was voted that this body, consisting of the Committee on Legislation and the State Auxiliary Legislative Committee, be called the National Legislative Council. On motion of Dr. McKnight of Connecticut, Dr. C. A. L. Reed of Ohio, chairman of the Committee on Medical Legislation of the American Medical Association, was elected chairman of the Council.

On motion of Dr. R. E. Conniff of Iowa Dr. J. B. Sanford of Colorado was elected secretary.

Dr. Reed presented a brief summary of the matters to come up at this meeting, after which Surgeon-General Wyman was called on and explained what measures were now asked of Congress by his department.

On motion of Dr. Conniff it was voted that the matter of the Colorado Medical Legislative League be referred to a committee of three. The chairman appointed Drs. Van Meter, Currens and Conniff.

It was voted that the chairman appoint such committees as are needed to investigate and report on such special topics as the chairman had already brought to the attention of the Council. The chairman appointed the following: On Army bills: Drs. Bovée, Borden and Beates. On Navy bills: Drs. McKnight, Marmion and Anderson. On Public Health and Marine-Hospital Service: Drs. Conniff, Evans and Sloan. On antitoxin: Drs. Harris, Wyman and Welch. On state organization: Drs. Van Meter, Currens and Conniff.

The following committee was appointed to consider the matter of a department of public health in the National government: Drs. Wrightson, Harris, Sloan, MacLachlan and Anderson.

It was moved by Dr. Van Meter of Colorado to go into committee of the whole on the question of uniform state medical legislation, at such hour as the chairman might designate. Motion carried. The chairman appointed 4 o'clock p. m. as the hour.

It was moved by Dr. Harris that Dr. Wiley, chief of the Bureau of Chemistry, Department of Agriculture, be invited to address the body in the afternoon on proposed legislation relating to drugs and pure foods. Carried.

Dr. S. D. Van Meter of Colorado presented a proposed amendment to state laws to require a bond of indemnity from plaintiffs in action for damages, and moved that a committee be appointed to report at the afternoon session. Carried. Chair appointed Drs. Van Meter, Sloan and Currens.

At the afternoon session an invitation was received through Hon. Francis B. Loomis, First Assistant Secretary of State, to visit the President at 1 o'clock to-morrow; this was accepted with a vote of thanks to Mr. Loomis.

The committee on bills relating to the Public Health and Marine-Hospital Service reported as follows:

WHEREAS, The Secretary of the Treasury has submitted to Congress an estimate for an appropriation of $75,000 for the Hygienic Laboratory of the Public Health and Marine-Hospital Service, providing for a building and grounds. This laboratory was established by Congress in 1900 for the investigation of infectious and contagious diseases and matters pertaining to the public health. Thirty-five thousand dollars was appropriated for buildings which have been erected. In 1902 the scope of the laboratory was largely extended to the addition of three new divisions, viz.: the diseases of medical zoology, pharmacology and chemistry. To accommodate these a new building is necessary. The importance of this institution is further illustrated by the provision of law requiring an advisory board, consisting of the director, representatives of the Medical Department of the Army and Navy and of the Bureau of Animal Industry of the Department of Agriculture and five members in the regular employ of the government, but skilled in laboratory work in its relation to public health.

Wherefore, Your committee would urge on the American Medical Association the necessity of encouraging in every possible way the development of the Hygienic Laboratory on the broad lines laid down by Congress, and should urge that body to act favorably on the recommendations of the Secretary of the Treasury for the much-needed accommodations for the additional work imposed on it by Congress itself. Respectfully submitted.

R. E. CONNIFF.
R. T. SLOAN.
JAMES EVANS.

The committee on legislation relating to the Navy reported:

Your committee has had under consideration the several bills referred to it, namely: "A Bill Authorizing the Establishment and Organization of a Corps of Dentists in the U. S. Navy," "A Bill for the Establishment and Organization of a Nurse Corps of Trained Women Nurses in the U. S. Navy," and "An Act to Reorganize and Increase the Efficiency of the Hospital Corps of the Navy of the U. S., to Define Its Duties and Regulate Its Pay," and that it finds that these measures have all received the approval of the Secretary of the Navy and of the Surgeon-General of the Navy and are now in the hands of the Committee on Naval Affairs of the two houses of Congress.

Your committee also reports that it unanimously approves the provisions of these measures and recommends that the National Legislative Council give them their sanction and whatever moral and active support they can through the legislative committee.

Your committee, however, feels that these measures are in such a favorable condition that they do not call for any definite action at this time by this subcommittee. Respectfully submitted,

E. J. MCKNIGHT.
R. A. MARMION.
WM. E. ANDERSON.

The report was adopted and the committee discharged.

The committee on antitoxin reported as follows:

Resolved, That there should be prepared in the United States a standard antitoxin for determining the strength of antidiphtheric serum and that the Public Health and Marine-Hospital Service be requested to prepare and maintain said standard. Be it further

Resolved, That antidiphtheric serum shall be introduced into the United States Pharmacopeia, and that the standard prepared by the Public Health and Marine-Hospital Service be made officinal.

Resolved, That a copy of this resolution be sent to the Committee on the Revision of the Pharmacopeia. Respectfully submitted,

E. ELLIOT HARRIS.
WALTER WYMAN.

The report was adopted and the committee continued, with instructions to carry the purposes of their report into effect.

The special order on a standard medical act was called at 4 o'clock.

Dr. Van Meter of Colorado moved that a committee of five be appointed by the chairman, with instructions to formulate a standard medical practice act to be presented at an adjourned meeting of this council to be held at Atlantic City on the Monday preceding the regular meeting of the American Medical Association. After discussion, participated in by Drs. Van Meter, Currens, Bovée, Wrightson, Conniff, McKnight, Evans, Harris and Sloan, the motion was adopted. The chairman appointed Drs. Van Meter, Currens, Sanders (Alabama), Amberg (Michigan), Dibrell (Arkansas) as such committee.

The committee on state organization reported as follows:

We, the committee on state organization, report that we recommend the Colorado plan without reservation so far as consistent with local conditions.

We would further recommend that each state proceed to organize along such lines; each organization to contain the feature of convincing the public that medical registration laws are not promulgated for the benefit of the medical profession, but for the good of the people at large. Respectfully submitted,

S. D. VAN METER, Chairman.
J. R. CURRENS.
R. E. CONNIFF.

Dr. J. Wesley Bovée of the District of Columbia introduced Dr. Bryant, a dentist, who presented to the Council a bill amending the statutes relating to patents, relieving medical and dental practitioners from unjust burdens imposed by patentees holding patents covering methods and devices for treating human diseases, ailments and disabilities, and who asked the aid of the Council in passing this bill. After discussion by the various members of the Council the matter was referred to a committee of five consisting of Drs. E. J. McKnight, Dr. Henry Beates, Jr., Dr. R. T. Sloan and James Evans, to be determined on later in the day.

The following resolution was offered by Dr. Harris of New York:

WHEREAS, The well-known insanitary condition prevailing on the Isthmus of Panama, as shown by the large percentage of sickness and death among the laborers engaged in the previous work on the Panama Canal, and in view of the fact that the successful prosecution of future work on the canal must largely depend on the sanitary administration, which includes the prevention of sickness and the saving of the lives of the laborers, quite as much as on the solution of the great engineering problem;

Resolved, That a representative of the medical profession who is an authority on the advanced methods of investigating the causes and of the prevention of disease, should be appointed a member of the canal commission, that he may have authority to protect the health and thereby save the lives of persons engaged to work on the proposed Panama Canal.

The resolution was adopted, and on motion the chairman, Dr. Reed, was authorized to use it as he saw fit.

Dr. H. W. Wiley, chief of the Bureau of Chemistry, Department of Agriculture, was next introduced, and addressed the Council on the subject of the pure food bill now pending in the Senate.

At the evening session Dr. J. W. Bovée presented the report of the committee on Army medical bills. (See THE JOURNAL A. M. A., pages 605 to 607, Feb. 27, 1904.)

The report of committee on a bill relating to patents to relieve medical and dental practitioners from unjust burdens imposed by patentees, etc., reported that as the bill does not directly affect the medical profession it was not within the jurisdiction of the committee to take action thereon. The report was accepted and the committee discharged.

On the roll call of states reports on the condition of medical legislation were presented as follows: Dr. S. D. Van Meter, for Colorado; Dr. E. J. McKnight, Connecticut; Dr. J. W. Bovée, District of Columbia; Dr. R. T. Sloan, Missouri; Dr. L. E. Harris, New York; Dr. Henry Beates, Pennsylvania; Dr. James Evans, South Carolina; Dr. Currens, Wisconsin; Dr. Chas. MacLachlan, South Dakota.

On motion the chairman at his discretion was requested to make a referendum on each of the following questions:

First: Appointment of a medical representative on the Panama Canal Commission.

Second: On the Army medical bills.

Third: On the pure food and drug bills.

On motion the Council adjourned to meet at Atlantic City June 6, 1904.

CLEVELAND ACADEMY OF MEDICINE.

Regular Meeting of the Section of Experimental Medicine, held January 22, 1904.

Dr. William H. Weir, vice-president of the Section, in the Chair.

The Effects of the Simultaneous Action of Pilocarpin and Atropin on the Development of the Embryo of the Starfish and Sea-urchin.

The experiments embodied in this paper by Dr. Torald Sollmann were a sequence to the work of A. P. Mathews, who has observed that pilocarpin stimulates the development of the embryos of asterias and arbacia, while atropin depresses it. This affords an opportunity of studying the result of the combined action of two poisons having opposite effects on the same cell, and presumably on the same structure. The method consists simply in placing the fertilized ova in salt water containing varying concentrations of the two alkaloids, and comparing the development at daily intervals for about a week. Seven experiments were made in all. Consideration of the results obtained led to the following conclusions:

Atropin alone is absolutely devoid of stimulant action, the smallest effective doses being depressant. Pilocarpin stimulates in small doses and depresses in larger doses. If the action is prolonged, the depressant phase predominates more and more.

When the solutions contain both poisons, it is found that atropin prevents the stimulating action of pilocarpin completely, and this effect appears even with doses of atropin which seem entirely inactive when used alone.

Small stimulant doses of pilocarpin lessen the depressant action of moderate doses of atropin, but in no cases do they remove the depression entirely. Larger stimulant, and all depressant doses of pilocarpin increase the atropin depression. This shows that both drugs are acting on the cell, even when they mutually obscure their action, and also shows that small doses of a stimulant are more efficient than large doses in removing a depression, providing that both poisons act on the same cell.

An Experimental Research Into the Cause of Death from Electric Shock.

This paper by Drs. G. W. Crile and J. J. R. Macleod gave an account of the effect of industrial electric currents on anesthetized dogs. With alternating currents (as used for lighting purposes), results in general confirmatory of those of Prevost and Batelli were obtained, the main points of practical interest in the present inquiry being the variable susceptibility of the dogs to electricity, and the fact that death was invariably caused by fibrillary twitching of the heart.

The variable susceptibility was very evident with a voltage of 2,300 volts, some dogs being killed by a momentary application, while others were able to withstand the current for several seconds, in fact, in some cases, as long as the current could be kept on without burning the tissues. The electrodes were in all cases applied similarly, one to the back of the head after the skin had been moistened, or in the mouth, the other to the hind legs or in the rectum. Records of the mean arterial blood pressure were obtained during the experiment, the curves showing a momentary rise of small amount, due to contractions of the muscles, followed by a fall to the abscissa. This fall was found to be due in the first instance to vagus inhibition, and in some dogs this was the only effect of the current, for it was found that in these it could be prevented by the preliminary administration of atropin. These were the dogs which recovered. In other dogs, however, the fall of blood pressure persisted, even after the current was broken, and on opening the thorax the heart was found to be in a condition of fibrillary twitching. Several methods were tried with the hope of restoring the normal heart beat, but with no avail. Perfusion of the coronary arteries with Locke's fluid, or with defibrinated blood, massage of the heart, administration of atropin, vagus stimulation and the application of the anode of a constant current were found to have no effect on such a heart. Experiments were then tried in which the electrodes were applied so that none of the current passed through the heart; for example, to the back of the head and to the front of the neck, to the two anterior extremities or to the two posterior extremities. The current in none of these cases produced any other effect than a vagus inhibition, which could be prevented by the use of atropin or by vagus section, and a cessation of respiratory movements, together with tonic convulsions. All these effects passed off when the current was broken, except in some instances, the cessation of the respiratory movements, but these movements could be recovered by the use of artificial respiration. Some of these latter dogs were allowed to come out from under the anesthetic, and were found to be in every way normal. Even 2,300 volts had no visible permanent effects on the respiratory and other

centers. In one dog where a current of 2,300 volts was passed between the front legs, fibrillary twitching appeared, probably on account of the spread of the current to the heart. The variable results recorded in the first series of experiments were undoubtedly due to a variable amount of electricity having traversed the heart. By applying the electrodes direct to the heart it was found that fibrillary twitching was produced by the lowest current at disposal (1 volt).

These results suggested that it might be possible to diminish the danger of high electrical currents, by applying to the body well above and below the region of the heart two copper bands, connected by copper wire. In this way a large portion of the current would be taken up by the copper bands and would therefore be excluded from the heart. Several experiments with such an arrangement gave very encouraging results, and the application of the measure is at present being worked out as a prophylactic measure.

With constant currents, 660 volts as used for electric street cars, make and break were alone found to have any action. At both, vagus inhibition, followed by fibrillary twitching of the heart, and death resulted.

NORFOLK DISTRICT MEDICAL SOCIETY.

Meeting held at Jamaica Plain, Mass., Feb. 23, 1904.

The President, Dr. Walter Channing, in the Chair.

The New Haivard Medical School.

DR. HAROLD C. ERNST, professor of bacteriology in Harvard Medical School, illustrated this subject by stereopticon views. This was the first full explanation of the plans which has been given to the medical profession.

Much time was spent in the choice of a location, and finally a piece of land containing 26 acres was purchased. It is an irregular square, bounded on two sides by Francis Street and Huntington Avenue and faces the end of Tremont Street. Not all this land is to be occupied by the school. On one corner will be the Brigham Hospital, while in other portions will be located the Good Samaritan Hospital, the Children's Hospital and the Infants' Hospital. Almost adjoining is the new Deaconess' Hospital, and but a few minutes' walk the Baptist Hospital, and the Woman's Charity Club Hospital on Parker Hill, overlooking this location.

The medical school itself will face on Longwood Avenue. Plans are already far advanced for the city of Boston to build a new entrance to its beautiful Fenway Park, passing out between the Venetian Palace of Mrs. John L. Gardner and the new Simmons College and ending just in front of the court of the medical school. This court will be rather more than 400 feet deep from the street. At the back will appear the administration building and on either side two laboratory buildings. These will be on one side, in front, for pathology and bacteriology, and about 50 feet back of that anatomy, histology and embryology. On the other side of the court, in front, hygiene and pharmacology, and back physiology and physiologic chemistry. The buildings are to be of white marble with practically no wood in their construction, and will present a most imposing architectural appearance to any such approach from the parkway.

The group of five detached buildings is the result of very much study and gradual development of ideas. The leaders in all this work have been Drs. Henry P. Bowditch and John C. Warren. Land and buildings are to cost $2,500,000. The purpose has been to relieve the present pressure on students and professors and to establish a great center for medical education and research.

The four laboratory buildings are in general very similar in construction. Each has a front on the court of 180 feet, 74 feet of this being in the center and 53 feet, on each side of this central portion, being the front of two wings running back from the court. There are three floors. In the central portion is an amphitheater to seat 342 students. The professor enters this from his own special rooms on the lower floor, which, on the level with the ground, is styled the basement. Students enter on the first floor. Here, beside the entrance for them to the amphitheater, is the department library, over the professor's rooms and in front of the amphitheater. This last is lighted in each case by overhead windows. The wings constitute the laboratories. One subject is to be taught in each wing and allied subjects are to be in the wings of each building as indicated above. This is in accordance with Harvard's new system of "extensive" instruction. A student will, therefore, spend his mornings in one wing of a building and his afternoons in the other wing, only leaving his laboratory to pass into the amphitheater for a lecture, and not leaving the building at all, unless for lunch. Lockers for the students are provided along the hallways. Plans are made to care for a class of 200, not including special research students. The laboratories are on the unit system, each being planned to accommodate 20 students, and hence allowing of indefinite expansion by building on at the ends of the wings. Students are grouped on the first floor and research workers on the second floor. The basement has a height of 12 feet and the other two stories of 18 feet each. There is also a further space above each building which is not evident from the outside, and which will be largely used for the animals needed in each of the departments.

The building for pathology and bacteriology has some peculiarities in its internal arrangements. There are large laboratories for the students instead of the unit laboratories, and the students are put in one wing, one laboratory being superimposed on the other. In the other wing are the smaller rooms for research workers, and two extra floors have been introduced giving rooms only 9 feet high. The library in this building, which is to be known as the Huntington Building, is larger, being 35x70 feet. The animals are to be kept in a building to be built back of the amphitheater between the wings. Externally the four buildings will be much alike, the two on either side of the court being separated by a space of almost 50 feet.

The administration building, at the back of the court, will be considerably more elaborate architecturally. It and the two buildings nearest it are the gift of J. P. Morgan. It will be occupied by offices on the first floor, a lecture room seating 340, and the Warren Museum on the second and third floors. The basement, which in this case, too, is level with the ground, will be devoted to the uses of students, lunch, lounging, library, reading rooms, etc.

The faculty have already established a students' health committee and a students' aid committee, whose functions will be much enlarged in the new buildings. A dormitory is much desired. Instruction in the new school will include, beside the present courses, such advanced work in medicine as shall enable a man to earn a Ph.D. or Sc.D.

Harvard's entrance standard, A.B., or its equivalent, has cut her enrollment from 750 to a little over 400. The numbers are again increasing, however. For the maintenance of this plant there are $1,500,000 funds available. Much more is needed. The per capita expense throughout the university gives the student $275 worth of instruction for the $200 he pays for tuition.

NEW YORK ACADEMY OF MEDICINE.

Meeting held Feb. 18, 1904.

The President, Andrew H. Smith, M.D., in the Chair.

The Hospital Car—Its Equipment, Uses and Importance.

DR. WM. W. SANFORD presented drawings and gave a description of such a car and pleaded that many should be introduced on the various railway systems and placed at certain intervals ready at all times to answer calls at times of accidents.

DR. ANDREW H. SMITH believed that if the companies would look to the needs of the injured more and have such cars the verdicts of juries would be less often against them than is the case at present.

The Rationale of the Natural Arrest of Consumption.

DR. W. B. MCLAUGHLIN, Austin, Texas, considered the effect of sea voyages, outdoor life, etc., on the disease, and made sug-

gestions as to ideal treatment. The study of the forces employed by Nature in dealing with the tubercle resolves itself naturally into the study of the pure tuberculosis infection and the study of complicating infections. Nature walls off pure tuberculosis infections with connective tissue, the rapidity of the process being in proportion to the vascularity of the part. In chronic ulcerative phthisis the mischief and ultimate death of the patient is largely caused by the complicating infections, the micro-organisms of which, if left to themselves and not reinforced by new infections, would become attenuated and finally die out. Experiments with dogs show this. It seemed to him that the deduction was ineviable, that if a patient suffering from chronic ulcerative phthisis was kept in sterile air and his person kept as near aseptic as possible for a sufficient length of time, he must in obedience to the laws of healing recover from his lesion, so far as his ulcerative phthisis was concerned, i. e., his ulcerative phthisis would be converted into a pure tuberculosis, or what was known as a latent tuberculosis. He said that autopsies taught that only 40 per cent. of these cases of latent tuberculosis became active. Thus it could be logically expected that out of every ten patients treated six would remain well, and four become reinfected and be compelled to return for another period of treatment. Many cases of ulcerative phthisis are converted into cases of pure tuberculosis by modern methods of treatment, but the results can not be obtained with mathematical accuracy until we place our patients where reinfection is a practical impossibility.

DISCUSSION.

DR. GEORGE L. PEABODY said that the author's purpose might be accomplished in the deserts of Egypt, where sterilized air might be had, or in mid-ocean, but how such air could be supplied artificially he could not see.

DR. JOHN B. HUBER agreed that the tubercle bacillus was not particularly dangerous *per se*, the danger was in mixed infection. The prevention, therefore, of the mixed infection should be the great object.

COL. W. C. GORGAS did not see how such a room could be fixed up and kept aseptic as had been tried in surgical cases. He believed that a very near approach to what was sought for was to be had in a plentiful supply of fresh air. Patients taken into municipal sanatoria and treated in this way, he believed, would get well in three or four months, instead of in from eight to ten months, as at present; this would be a great saving to cities.

DR. S. A. KNOPF emphasized the importance of plenty of fresh air, sunlight, the abolishing of dark rooms with their foul air and filth. In dealing with the tuberculosis problem, he said we should seek after the ideal and do away with things that were not practical. To render and keep the atmosphere of a room aseptic was impossible, but much could be done by teaching the masses to love fresh air; this was practical.

DR. MCLAUGHLIN said that if such a thing as he suggested could be done it would be a great advance in the therapeutics of tuberculosis. So far as the sterilizing of the air was concerned much could be done by the removal of the dust.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Melancholia.

In outlining his treatment of melancholia, Aiken, in *West. Med. Rev.*, states that whatever exceptions may be granted members of the family or relatives to act as nurses, they should never be the constant attendants on a case of melancholia. The patient's reasoning power is not diminished, but perverted, and the presence of relatives intensifies the mental pain and deepens the sense of unworthiness which is the burden under which the patient is suffering, fearing, as he does, that he will never regain his social or moral standing. The alimentary canal must be cleansed and kept evacuated, preferably by salines, and the patient must be given nourishment. Milk, eggs, meat juices, soups and other nourishing and easily assimilated food should be administered six to eight times every twenty-four hours. Sleep is best induced by the hot bath, a hot drink, and the administration of trional, sulphonal or such other hypnotics as do not depress the heart. Opium, at least, theoretically so, is contraindicated on account of its tendency to lock up the excretory organs.

The author has had considerable asylum experience and has derived splendid results from the use of tincture of ipecac and opium or pulverized opium in the treatment of melancholia. It moistens the skin, liquefies the alvine discharges and diminishes mental anxiety. The overloaded bowel must be relieved and will sometimes produce sleep when hypnotics fail. In the slow and feeble pulse and when there is vasomotor contraction, the use of belladonna relaxes the arteries, giving a better peripheral circulation. For quieting maniacal outbursts the fluid extract of gelsemium by the mouth or hyoscin hydrobromate subcutaneously and the prolonged use of the hot bath are the best remedies. The nurse must possess an unlimited amount of good nature, even under the most trying circumstances.

Syphilis in Infants.

According to M. Schwab, in *Med. Press*, injections of biniodid of mercury in a watery solution are superior to all other classical methods and the hypodermic treatment should take the place in the treatment of infantile syphilis. It is without danger and is rapid and certain. The average dose should be from one to two milligrams given daily for ten or fifteen days and then suspended for the same length of time, when it should be resumed again for ten days.

The following formula is recommended by the author:

℞.	Hydrarg. biniodidi.....gr. 4/5	05
	Sodii iodidi .....gr. 4/5	05
	Aq. destil. 3iiss	10

M. Sig.: Twenty to thirty drops to be injected into the lumbar region once daily.

Prevention of Iodism.

In an abstract in *Med. Review*, F. Lesser states that it is usually assumed that when potassium iodid is taken into the stomach containing its normal acid secretions, it is broken up and free iodin given off, which produces symptoms of iodism, and to prevent this it has been prescribed with sodium bicarbonate, belladonna or sulphanilic acid. Should it enter the body as free iodin it immediately combines with the albuminous compounds of the body. However, according to the author, with the exception of the thyroid gland no organ contains albuminous compounds of iodin, so that it has never been proven that potassium iodid is not in itself capable of producing iodism, just as iodoform may produce toxic symptoms without decomposition. Iodipin, which is a compound of iodin in sesame oil, is recommended by the writer as a preparation which does not produce iodism if given hypodermically, but has no advantage over potassium iodid if given by the mouth. In whatever way it may be administered, iodipin is excreted as potassium iodid. So he concludes that if either iodipin or potassium iodid be given in small doses and frequently, iodism is not so liable to follow. For instance, instead of giving tablespoonful doses of the mixtures three times a day, a teaspoonful should be given every hour for twelve hours; the total quantity given and therapeutic results are just the same, but iodism is avoided.

Pneumonia.

The use of calomel in pneumonia has been recommended by C. Bertazzoli in *Med. News*. Although he does not consider this preparation as a specific, it should be administered in generous doses, and should be accompanied by such other drugs as provoke energetic peristalsis so as to procure its elimination from the organism rather than be absorbed. He, therefore, administers it combined with scammony because of the latter's

effect on the intestine. The calomel produces antipyretic effects and seems to cut short the further spread of the inflammatory process. The headache is also relieved, as well as the delirium. It is also a good diuretic and a reliable disinfectant.

To lower the temperature and pulse in pneumonia, the following combination containing sodium salicylate is recommended:

℞. Sodii salicylatis 3i 4
Syr. simplicis 3iii 12
Aquæ q. s. ad .....℥vi 180

M. Sig.: One tablespoonful every hour until the patient perspires freely.

To relieve the cough and pain in pneumonia Danforth, in *Applied Ther.*, recommends the following combination:

℞. Codeinæ .....gr. ii 12
Liq. ammon. acetatis
Spts. chloroformi, āā 3iv 15
Syr. lactucarii q. s. ad.....℥ii 60

M. Sig.: One teaspoonful every hour.

As a substitute for the foregoing prescription the codein may be combined with camphor or ammonium carbonate in order to stimulate the functions of skin.

After the stage of resolution, if cough is troublesome, some expectorant mixture similar to the following is recommended:

℞. Morph. sulph. .....gr. i 06
Ammon. carb. 3i 4
Aquæ camph. .....℥i 30
Syr. pruni virg. .....℥ii 60

M. Sig.: One teaspoonful every three hours.

Typhoid Fever.

In the general management and treatment of typhoid fever at Johns Hopkins Hospital, according to an article in the *Practitioner*, rest, diet and baths comprise the important parts, as no drugs are given unless there be some special indication. Strychnia is given in doses of grain 1/50 each (.0003) every four hours if the pulse becomes rapid and weak. The mouth receives constant care. As a mouth wash the following is recommended:

℞. Sol. acidi carbol. (1 to 20)
Glycerini, āā.....℥i 30
Sol. acidi borici (sat.) .....℥viii 240

M. Sig.: To be used as a mouth wash after each feeding.

As to the bowels, a state of constipation is preferred. If necessary, the bowels are moved every second day by a simple enema, preceded sometimes by a large injection of oil. No purgative is given by the mouth during the attack. Diarrhea is taken as a signal for the reduction of the diet, milk being generally cut off. If the diarrhea is not then checked, bismuth is given in full doses or the lead and opium pill is given. In severe cases an enema of laudanum and starch is administered. For the tympanites turpentine is used externally, by the mouth or by enema. The long rectal tube, sometimes inserted and allowed to remain for half an hour, may be of advantage. Alcohol is not given as a routine with the baths. However, if there be a severe toxemia or a failing circulation, it is given freely, because the patient's condition demands it and not because he is getting the baths.

None of the so-called intestinal antiseptics is given. If the heart becomes rapid, pulse weak, and first sound indefinite strychnia in doses of grain 1/60 to 1/20 (.001-.003) is given every four hours with fine results; but it is not given continuously for twenty-four hours.

For the severe headache small doses of bromid or codein or opium are sometimes given, if application of the ice bag is not sufficient.

To prevent severe toxemia baths are of great benefit and if patients can not be induced to take sufficient liquid by the mouth, saline infusions are given regularly three times a day, giving altogether a liter or a liter and a half of fluid. In some cases fluid can be given by the bowel, and if patients refuse to swallow, food is given through the stomach tube. Convalescence is regarded as the most troublesome part of the treatment. The diet should include clear soups, broth, gruel and beef tea when the temperature becomes normal. Junket, custard, jelly and soft-boiled egg may be added after a few days. Soft toast may be added at the end of the first week. From the seventh to the tenth day scraped beef or sweet bread may be added. Iron is given if any grade of anemia is present.

In the treatment of hemorrhage absolute quiet is secured, if necessary, by morphin hypodermically, the diet is reduced to albumin alone or all food discontinued, and it is advisable to discontinue stimulants for a time. A light ice bag is applied to the abdomen. The danger of giving opium by the mouth is in masking the symptoms of a perforation, which so frequently accompanies hemorrhage.

If the blood coagulation time of a patient is longer than normal when entering the hospital, calcium chlorid is given in fifteen-grain doses (1.00) three times a day. Its value as a prophylactic measure has not yet been decided.

Saline infusions should not be given after a hemorrhage unless the patient be in collapse or exsanguine.

Medicolegal.

Construction of Statute as to "Other Agency."—The Supreme Court of New Jersey holds, in the case of State vs. Herring, that an osteopath whose treatment of his patient consists simply of the manipulation of the body, does not violate that provision of the act of May 22, 1894, Section 8, which forbids the applying of "any drug, medicine or other agency or application" by an unlicensed person. It says that the phrase "other agency or application" is a very broad one, and, in its general sense, would undoubtedly include the use of the hands. But it is conjoined to the terms "drug" and "medicine," which are much more special; and, under the maxim, "Noscitur a sociis" (the meaning of a word is or may be known from the accompanying words), its interpretation should be such as will confine it to the class in which its special associates stand. Moreover, as a phrase employed to create and define offenses unknown to the common law, it must be strictly construed. In forbidding an unlicensed person to apply any drug or medicine for remedial purposes, the legislature plainly contemplated the use of something other than the natural faculties of the actor—some extraneous substance. A similar restriction must attach to the more general terms "agency" and "application," and they must likewise be held to import only some extraneous substance.

Injuring Own Body, or Another's with Assent—Abortion.—The Supreme Court of Errors of Connecticut says, in the case of State vs. Carey, where there was a conviction of an attempt to produce a criminal abortion, that, ordinarily, a man may injure his own body by his own hand or the hand of an agent, without himself violating the criminal law. And the agent who injures another's body with such assent may commit a crime of which the injured party is not guilty. A murderer can not justify himself by proving the assent of his victim. Non-interference with a man's control of his person is not extended to the disposition of his life; but taking one's own life is a thing distinct from the crime of murder. If a man in a moment of weakness should assent to the opening of a vein by another for the purpose of ending his life, and, when in the immediate expectation of death, should make a statement of the facts attending the assault, it would hardly be asserted, on trial of his assailant for felonious killing, that the dying declaration must be received with all the infirmities attending the testimony of an accomplice in the crime. This distinction between a man's injuring his own body himself, or assenting to such injury from another, and the crime that may be committed by another in inflicting such injury, has been strongly drawn in crimes akin to the one under discussion. At common law an operation on the body of a pregnant woman, with intent thereby to cause her miscarriage, is an indictable offense, but it is not an offense in her to so treat her own body, or to assent to such treatment from another; and the aid she may give to the offender in the physical performance of the operation does not make her an accomplice in his crime. It is a crime which, in the nature of

things, she can not commit. And so it has been held, under various statutory forms of this offense, that the victim of an attempted abortion can not be an accomplice in a crime which consists in an operation on her body, with or without her consent, by another person, with intent to produce abortion. Again, the court says that the criminal intent and moral turpitude involved in the violation by a woman of the restraint put on her control over her own person is widely different from that which attends the man who, in clear violation of law, and for pay or gain of any kind, inflicts an injury on the body of a woman endangering health and perhaps life.

Constitutional Limits to Scope of Medical Practice Acts.—The Supreme Court of North Carolina, speaking through Chief Justice Clark, in the case of State vs. Biggs, refers to the incorporation of "The State Medical Society," in 1858-59, and the sustaining, but not without great hesitation, of the medical-practice act, passed in 1885, and says, among other things, that, after the decisions in State vs. Call, 121 N. C. 646, and State vs. McKnight, 131 N. C. 723, moderation and wisdom would have suggested that the matter rest. Those who wished to be treated by practitioners of medicine and surgery had the guaranty that such practitioners had been duly examined and found competent by a board of men eminent in that high and honorable profession, and those who had faith in treatment by methods not included in the "practice of medicine and surgery," as usually understood, had reserved to them the right to practice their faith and be treated, if they chose, by those who openly and avowedly did not use either surgery or drugs in the treatment of diseases. The courts have declared that they possessed this right, and that the legislature could not, under the constitution, restrict all healing to any one school of thought or practice. What is "the practice of medicine and surgery" is as well understood, and its limits, as the practice of dentistry. The courts have also held that of the many schools of "medicine and surgery" the legislature could not prescribe that any one was orthodox and the others heterodox, but that those professing the different systems—"allopathic," "homeopathic," "Thompsonian," and the like—should be examined on a course such as is taught in the best colleges of that school of practice, but that it is not essential that a member of each, or of any special school, should be on the board of examiners. Chief Justice Pearson noted, as of common knowledge, and reiterated, that railroad charters are drafted by "promoters," and hence should be construed most strongly against the grantees and in the interest of the public. The same construction can fairly be applied to act of 1903, amendatory of the charter of this corporation, in whose supposed interests it was evidently drafted, and not solely in the interest of the public. Under the guise of "construction" of those well-understood terms, the "practice of medicine and surgery," the act essays to provide that the expression "'practice of medicine and surgery' shall be construed to mean the management 'for fee or reward' of any case of disease, physical or mental, real or imaginary, with or without drugs, surgical operation, surgical or mechanical appliances, or by any other method whatsoever." That is, the practice of surgery and medicine shall mean practice without surgery or medicine, if a fee is charged. If no fee is charged, then the words "surgery and medicine" drop back to their usual and ordinary meaning, as by long usage known and accustomed. Where, then, is the protection to the public, if such treatment is valid when done without fee or reward? Yet, unless the act confers, and is intended solely to confer, protection on the public, it is invalid. The legislature can not forbid one man to practice a calling or profession for the benefit or profit of another. The act is too sweeping. Beside, the legislature could no more enact that the "practice of medicine and surgery" shall mean "practice without medicine and surgery" than it could provide that "two and two make five," because it can not change a physical fact. And when it forbade all treatment of all diseases, mental or physical, without surgery or medicine, or by any other method, for a fee or reward, except by an M.D., it attempted to confer a monopoly on that method of treatment, and this is forbidden by the constitution. This is a free country, and any man has a right to be treated by any system he chooses. The law can not decide that any one system shall be the system he shall use. If he gets improper treatment for children or others under his care, whereby they are injured, he is liable to punishment; but whether it was proper treatment or not is a matter of fact, to be settled by a jury of his peers, and not a matter of law, to be decided by a judge, nor prescribed beforehand by an act of the legislature. The public has a right to know that those holding themselves out as members of that ancient and honorable profession—the medical profession—are competent and duly licensed as such. The legislature can exert its police power to that end, because it is a profession whose practice requires the highest skill and learning. But there are methods of treatment which do not require much skill and learning, if any. Patients have a right to use such methods if they wish, and the attempt to require an examination of the character shown for the application of such treatment is not warranted by any legitimate exercise of the police power. In this case, the court says, the defendant was found guilty of the following acts, and no more: (1) Administering massage baths and physical culture; (2) manipulating muscles, bones, spine and solar plexus; (3) kneading the muscles with the fingers of the hand; (4) advising his patients what to eat and what not. And all this without prescriptions, without any drugs or surgery. These acts, by the terms of the statute, are harmless and not indictable, "unless done for fee or reward." There is nothing in this treatment that calls for an exercise of the police power by way of an examination by a learned board in obstetrics, therapeutics, materia medica and the other things, a knowledge of which is so properly required for one who would serve the public faithfully and honorably as a doctor of medicine. And the court reverses a conviction of unlawfully practicing medicine and surgery, Justices Walker and Connor concurring in the result.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below. Titles of articles will be listed but once, though the articles appear later in other journals.

Medical Record, New York.

February 20.

1 *Heart Syphilis. I. Adler.
2 *High-frequency Currents in the Treatment of Skin Diseases. Charles W. Allen.
3 *Medicolegal Aspect of Accidents Caused by the Roentgen Rays. Carl Beck.
4 Insomnia. Eliot Gorton.
5 Common Duct Stone Associated with Acute Septic Cholangitis. George E. Brewer.
6 Case of Choroidal Inflammation, with Permanent Loss of Vision, Caused by Excessive Use of the Eyes During a Comparatively Short Period of Time. D. B. St. John Roosa.

1. **Heart Syphilis.**—From his study of the subject, Adler holds that syphilis of the heart is not rare, but rather common. It is often possible to make a diagnosis of heart syphilis with exactness, but more often the diagnosis is not absolute. He holds, however, that we should take into account syphilis as a possible factor in every case of heart disease and at all ages. He would not imply by this that every case should be subjected to iodid of potash or mercurial inunctions, but it should be perfectly clear to us why syphilis should be excluded. The patient should have the benefit of the doubt, as in certain nervous diseases. Possibly heart disease should also be considered in every case of syphilis, and the same made the object of careful and constant observation. The pathologic changes may be quite advanced when they produce perceptible disturbances, and the likelihood of relieving the condition is the greater the earlier the specific process is understood. One must not look for pronounced physical signs in the early stages, and in every examination of a syphilitic patient close attention should be paid to the heart, and he should be discharged only when it is insured that the specific disease has disappeared and the heart is as far as possible in normal condition.

2. **High Frequency Currents in Skin Diseases.**—Allen defines and describes the method of application of high frequency currents in skin disorders, gives a summary of 175 histories of which he has records of the use of these currents, and also reviews the opinions and statements of European authorities on the subject. He holds that these currents are a decided advantage in skin diseases, but especially in connection with other measures, and are curative in a restricted class of cases. In the larger class they aid in relieving the symptoms, namely, those attended with pruritus. On the whole, high frequency currents are inferior to the *x*-ray in skin work, but the two go well together.

3. **The X-Rays.**—Beck reviews the lesions produced by the *x*-rays, especially from a medicolegal point of view, and insists on the importance of making applications carefully and suited to the case. Under modern methods the chances of serious damage are greatly lessened, and the fact that inflammation produced by the *x*-ray is a necessary accompaniment of the therapeutic effect in many cases is also emphasized.

Medical News, New York.

February 20.

7 *Administrative Control of Tuberculosis. Hermann M. Biggs.
8 *House Infection of Tuberculosis. Lawrence F. Flick.
9 Case of Tetany. Joseph Barsky.
10 Two Cases of Severe X-ray Necrosis, Presenting Some Unusual Features. Clarence E. Skinner.
11 *Value of Vaginal Cesarean Section; with Report of Two Cases. M. Stamm.

7. **The Administrative Control of Tuberculosis.**—The measures that are required for the administrative control of tuberculosis are stated by Biggs as follows: 1. Compulsory notification and registration of all cases. This does not require any action on the part of the authorities unless it is absolutely necessary. 2. Facilitating early and definite diagnosis by affording means of free sputum examination in case of suspected disease. 3. Educational measures, both for the profession and public, on the subject of tuberculosis by circulars, agitation in the lay press, lectures, etc. 4. The visitation of consumptives at their homes and the giving of verbal instruction and leaving circulars and directions how to manage the disease, also to see to the removal of cases if necessary. 5. The disinfection or renovation of rooms or premises which have been vacated by consumptives by death or removal. A trained medical inspector should be sent around. Where the walls and ceilings of the premises are filthy or in bad condition, renovation by the owners should be required and the premises should be vacated and their occupation by others until proper measures are taken should be prohibited. He notices at length some of the difficult problems in this respect, such as the frequent changes of residence of consumptive cases, and does not feel sure that eventually notification by the owner of the removal of a consumptive will not be necessary. 6. Provision should be made for repeated visits to cases in tenement houses when the patient can not be removed to an institution. This can best be done by trained nurses. 7. Suitable food should be provided by the sanitary authorities where the patients are in such destitute circumstances that proper nutrition can not be secured. 8. The sanitary authorities should provide three classes of institutions: free dispensaries for ambulatory cases; hospitals for the care of advanced cases, to receive patients discharged from other institutions, or cases living in lodging houses or inmates of public institutions not affording facilities for their care, and cases that have been removed from their homes on account of the danger of communication; also those that can not otherwise be treated at home. Thirdly, sanatoria in favorably situated country districts for the treatment of early and incipient cases. Patients discharged from such sanatoria are valuable factors for the education of others. 9. The sanitary authorities should issue regulations applicable to public institutions as to the care of consumptives, including under this not merely the hospitals but penal institutions, homes, asylums, etc. 10. There should be regulations enforced prohibiting spitting in public places, conveyances, sidewalks, etc. It has been the custom also in New York to communicate with the attending physicians in cases of tuberculosis to inquire as to the progress of the case, to supply sanitary cuspidors, and thoroughly inspect and study the tenement-house region. It has been said of late years that the decrease in the mortality from consumption has been to a certain extent due to reporting these deaths under the head of pneumonia. An investigation was made as to this point with the result of finding very few pneumonia deaths that could properly be attributed to consumption. The investigation is still being continued, and whenever there is reason to believe that a death has been improperly credited, a change is made in the reports. Biggs does not believe that the great and rapid fall of the tuberculosis death rate is a result of false diagnosis.

8. **House Infection of Tuberculosis.**—Flick points out that tuberculosis is only communicable within confined quarters, and that the house is the essential element of communicability. It prepares the soil for the tubercle bacillus, and furnishes the amount of contamination which is necessary to overcome the resistance of the individual. The workshop is another common means of spreading the disease. Enclosures, such as hotels, churches, public halls, places of amusement and public conveyances where the public stay but a short time, are very unlikely to convey the disease. Consumption can properly be called a house disease.

11. See abstract in THE JOURNAL, xli, p. 871.

New York Medical Journal.

February 20.

12 *Clinical Importance of Aerophagia. Heinrich Stern.
13 *Some of the More Unusual Results of Movable Kidney. Charles P. Noble.
14 *Sex Differentiation and Education. William Lee Howard.
15 Osteomyelitis. Howard J. Williams.
16 *Artificial Fluorescence of Living Tissue in Relation to Disease. (Concluded.) William J. Morton.
17 *Roentgen Rays in the Treatment of Pruritus Ani. J. Rawson Pennington.

12. **Aerophagia.**—Stern thinks this habit or condition has been generally too much overlooked in the human species. It is a common veterinary affection, and the crib biting of horses finds its analogy in certain hysterical women. In most of the subjects, however, some obstruction in the upper respiratory vessels or asthmatic contraction of the lung tissue seems to predispose. The symptoms generally appear after eating. The patient feels a sense of weight and tension in the gastric region and frequently inodorous eructations occur. The volume of expelled gas is sometimes enormous. In the confirmed aerophagic the gastric symptoms much resemble those of pneumatosis on the basis of motor insufficiency of the organ, differing little from the phenomena of excessive gas formation in the stomach and its retention there. In the aerophagic, however, the gas is more or less odorless. During its presence in the stomach the patient may have shortness of breath, cardiac palpitation, cephalalgia and vertigo. Anorexia and vomiting are of frequent occurrence, together with weakness and emaciation. Stern believes, however, that active extensive work in the open air and overindulgence in outdoor sports are the most frequent causes, and gives illustrations from bicyclists and baseball players. The aerophagic condition, however, is not limited to the stomach. The air passes into the duodenum and other portions of the intestinal tract, and he knows of a number of cases of suspected typhoid, appendicitis, etc., due to this cause. In the hysterical case the air may be thrown out almost immediately; in fact, may not go below the esophagus. When the attack can not be abated and the hysterical patient is used to it, the condition need not be combated very much. Habitual air swallowers hardly ever seek the services of a physician and submit reluctantly to treatment. Moral treatment must be largely relied on in hysterical cases. In the non-hysterical the stomach tube should be employed whenever practicable, followed by irrigation with large quantities of water, to which has been added chloroform water about 10 c.c. per liter, followed by a prescription of bismuth, salicylate and menthol. Occasionally emetics may be employed and turpentine in emulsion. Aromatic spirits of ammonia, well diluted, will aid in the expulsion of gas from the intestines. In case there are cramps from compression of the air in the intestines nothing but ice and water should be given until the small intestines have been completely evacuated. Opium may

have to be resorted to for severe pain. He generally gives castor oil in emulsion for pronounced intestinal tympany following air swallowing. Rest in bed is imperative in intestinal air accumulations, and when there is no doubt as to the real condition he prefers hot fomentations. Massage might be injurious. If there is no marked improvement, attention should be given to food, and it should be of non-fermenting character and in small quantity.

13. **Movable Kidney.**—The unusual symptoms here noted by Noble are Dietl's crisis from the torsion of the kidney on its vessels, hematuria from the same cause, a sense of dragging from the traction on the vessels and adjoining structures, presence of albumin and casts, usually hyaline casts, in the urine as the result of congestion of the kidney due to interference with its circulation. His experience does not confirm Edebohls' statement that movable kidney tends to chronic nephritis, but on *a priori* grounds this would seem probable. Illustrative cases of the different complications are given. His object in presenting the paper is to emphasize that, while the usual symptoms of movable kidney are more or less general, there are distinct local lesions which can not be disregarded.

14. **Sex Differentiation and Education.**—Howard insists on the difference in the mental qualities of the two sexes, and the bad effects of ignoring these in the popular systems of education at the present time. He is not an advocate of coeducation.

16. **Artificial Fluorescence of Living Tissue.**—Morton concludes his paper with reports of cases in which he has used a method of producing fluorescence of the internal organs by medication, he thinks, with advantage, including cases of Hodgkin's disease, carcinoma of the breast and papillomatous growths in the abdomen, etc. He thinks he has made out a fair *prima facie* case for the thorough investigation of this method of treatment.

17. **Pruritus Ani.**—Eleven cases are reported by Pennington in which the *x*-ray was employed for this distressing condition, some of which had been treated ineffectually by various specialists. He thinks the good results in these cases are worth recording. The patients had practically no internal or local treatment during the exposures, though he would not recommend the method to the exclusion of all others.

American Medicine, Philadelphia.

February 20.

18 *The Life Cycle of Ameba Coli in the Human Body: A Preliminary Note. Charles F. Craig.
19 *Medical Treatment of Diabetes. W. H. Thomson.
20 *The Retinal Symptoms of Vascular Degeneration. L. A. W. Alleman.
21 *Posterior Gastroenterostomy, by a Modified Maunsell's Method, with an Entero-enterostomy by the Hartley Method. W. L. Wallace.
22 Roentgen Ray Treatment of Diabetes. Clarence E. Coon.
23 Hour-glass Contraction of the Uterus. Charles F. Beeson.

18. **The Ameba Coli.**—Craig finds in the amebæ, stained by the modified Wright's method, some chromatin patches which appeared to him to be spores. He believes that the *Ameba coli* undergoes reproduction by sporulation, and that this most adequately explains the persistence of the ameba infection. If these sporulated patches were encysted it would still better explain the persistence of such infection. He reviews the different points which have been urged for differentiating the *Ameba coli* from other amebæ, such as its size. He can not himself confirm the observation that the large size is the ameba of dysentery. Some authors have endeavored to classify these organisms by their phagocytic action. He thinks this is a very unlikely point on which to base a classification. The occurrence of amebæ in apparently healthy intestines has been used as an argument for the existence of pathogenic and non-pathogenic varieties. Craig holds that this claim is absurd, as other parasites are also found without producing their pathogenic infection. That amebæ are present in healthy individuals may imply a loss of virulence on their part or immunity on the part of the bearer. As far as he has been able to observe, such amebæ occurring in the apparently healthy intestines are identical with those occurring in dysentery. He thinks any attempt to classify the pathogenic and non-pathogenic forms will lead to confusion and be of no advantage.

19. **Diabetes.**—Thomson would class any glycosuria lasting more than a year as diabetes and as a serious disorder. For medicinal treatment he would throw out purely functional remedies such as opium, that is, those that do not affect structure, and employ others that do. Among the latter he mentions cod liver oil, which he finds diminishes the sugar and the excess of urea eliminated when it is taken freely and is well borne. Next to this he would mention iron. He tries to give diabetics all the iron they can take, together with all the fresh air they can get. To avoid constipation he would use the old-fashioned Hooper's pills, of which he gives the formula. He would also use drugs falling in the class of so-called medicinal antiseptics, among which he includes arsenic. Other drugs used are sodium benzoate, bismuth salicylate, etc. Alkalies in the form of mineral waters hold a deserved place in the treatment of diabetes, but it should be remembered that their continued use tends to a wasting of flesh, and hence they should not be given to any one losing flesh. In case of diabetic coma, he calls on the most trustworthy diuretic that we have, namely, prolonged intestinal irrigation with normal saline solution.

20. **The Retinal Symptoms of Vascular Degeneration.**—Alleman finds from a study of cases a certain number of fundal appearances which indicate vascular degeneration. In the first class the only thing is a tortuosity of the smaller retinal vessels. In the second class the same condition with more or less bending at the crossings is observed. In the third group some evidence of organic change in the vascular walls can be made out. The curve at the crossings is more pronounced, and a slight haze can be made out on either side of the red line of the upper vessel. He includes in the fourth class all cases presenting advanced vascular disease, such as hemorrhagic, albuminuric and diabetic retinitis. The physical signs which are the first evidence of disturbed nutrition are due to a higher peripheral tension associated with improper elimination, entailing simple tortuosity of the smaller vessels. There may be with this a general lassitude, headache, vague nervous symptoms, etc., and urinary examinations show a diminution in the elimination of urea. As to whether this is an important factor, he is not sure, though it may be a fair guide. In the second group there is spastic contraction of the retinal vessels, which may accompany hemicranias and neuralgias. The patient's general condition may vary from perfect health to nervous prostration, and the urinary findings differ but slightly from those in Class 1. In the third group there is generally some discoverable evidence of vascular degeneration; the radials offer a little more than the normal resistance, and there is frequently a discoverable cardiac hypertrophy. He tabulates a large number of illustrative cases in which the urinalysis and retinal findings are both given. He thinks the field of observation is a wide one and should be cultivated.

21. **Posterior Gastro-enterostomy.**—The steps of the operation employed by Wallace are given with illustrations as follows:

1. The abdomen was opened and the usual investigation made. Posterior gastroenterostomy necessitates pushing the jejunum through the transverse mesocolon and uniting it to the posterior wall of the stomach.

2. The transverse colon with great omentum was pulled up and an opening torn through the transverse mesocolon, exposing posterior wall of the stomach.

3. The jejunum, about 8 or 10 inches from its beginning, was picked up and the funis clamp was placed on its antimesenteric border with the long axis of the clamp in the long axis of the gut, pulling the bowel well through the clamp, so as to grasp about 2 inches by ½ inch. A pair of artery forceps was snapped on the funis clamp to serve as a handle in further manipulations, and to make it impossible for the funis clamp to come open.

4. The clamped bowel was pushed forward through the opening in the mesocolon and against the posterior wall of the stomach, crowding the stomach far out of the abdominal incision, where it appeared as a dome, through the double wall of which the clamp could easily be felt.

5. A 2-inch vertical incision was made through the anterior wall of the stomach, and the clamped bowel was pushed through this opening, invaginating the posterior wall of the stomach before it.

6. The posterior wall of the stomach was cut transversely, letting the clamp push through, and hatpins were passed under the clamp through the posterior wall of the stomach and the intestine, holding their serous surfaces securely together, and allowing them to be drawn far out, invaginated through the opening in the anterior wall of the stomach.

7. The forceps holding the funis clamp were taken off, the bowel opened by cutting under the funis clamp, and the edges of the intestine and the posterior wall of the stomach were overcast with fine silk, as in Maunsell's operation.

8. The hatpins were pulled out. Half of a Murphy button was dropped into each arm of the intestine, and then the posterior wall of the stomach, with the intestine anastomosed, was allowed to drop back through the opening in the anterior wall of the stomach, and the opening in the anterior wall of the stomach was then closed.

9. The anastomosis was examined from beneath the transverse mesocolon and the halves of the Murphy button were pushed together, cutting over their cylinders (Hartley method) and the abdomen was closed without a drain.

The method, he thinks, is rapid and safe, and the bowel can be clamped and pushed through the transverse mesocolon and passed up through both walls of the stomach quicker than the process can be described. The parts are so securely held that to overcast the edges after the Maunsell method requires a few seconds only. In the case reported the method was entirely satisfactory.

Boston Medical and Surgical Journal.

February 11.

24 *Remarks on Cholecystectomy and Cholecystostomy, with Special Reference to Their Comparative Safety and Efficiency in the Treatment of Biliary Affections. Maurice H. Richardson.

25 *Cholecystostomy and Cholecystectomy. A Study of a Certain Series of Operations. Charles L. Scudder.

24. **Cholecystectomy and Cholecystostomy.**—Richardson discusses the two operations, cholecystectomy and cholecystostomy, as compared with each other in respect to danger, efficacy in the prevention of recurrence of gallstones, advantages of drainage and the future possibilities and difficulties of each. As regards the danger, he thinks cholecystostomy is the safest, but the dangers are not excessive in either operation. The removal of a comparatively normal gall bladder in experienced hands probably does not add materially to the risk. In very decidedly abnormal gall bladders, such, for instance, as an adherent, friable, thickened septic organ, with presumably a thickened, strictured duct, the condition is more formidable and the difficulties of drainage may be much greater. When the gall bladder is thickened and contracted, when its fundus is far removed from the abdominal wall, the difficulties of drainage, on the other hand, may be greater than those of extirpation. Drainage is also often desirable, even if extirpation of the bladder is advisable. As regards the prevention of gallstones, he thinks they seldom if ever recur excepting in the gall bladder, but recurrence in his observation is rare. As regards the liability to re-formation, the facts favor cholecystectomy rather than cholecystostomy, but the weight of this argument is light. Drainage of the biliary passages is the one great benefit to be gained by operation. He thinks the escape of bile from the wound for two or three weeks does more good than anything else connected with the operation, and any method that fails to provide this fails in an important element of permanent success. It is true that drainage of the biliary passages may be effected after the removal of the gall bladder, through the cystic, common or hepatic ducts, but the operation is not as easy or safe as might be anticipated. To hunt for the hepatic duct after the isolation of the gall bladder and cystic duct is no small operation in itself, and the cystic duct is sometimes so small that it will not admit anything but the smallest probe and the valves prevent its introduction. The hepatic duct, unless dilated by obstruction below, is too small for the introduction of anything but the smallest tubes and it requires a long incision to find it. It will take a good deal, he thinks, to convince him of the wisdom of drainage in these ducts as against so safe and efficient a method as cholecystostomy. Under certain conditions, drainage through the hepatic duct must be used, no matter what the operation is, when drainage through the gall bladder has been ineffectual or unduly difficult, and in gallstone impactions of the common duct hepatic drainage is, of course, essential. If drainage is essential in gall-bladder surgery, cholecystectomy should never be performed in a comparatively normal gall bladder. When the gall bladder is abnormal—infected, contracted—it should be removed for reasons connected with its own pathologic condition. Yet he has been surprised to see how many deeply infected gall bladders have healed after cholecystostomy. He can not escape the conclusion that cholecystectomy without drainage is an incomplete and dangerous operation, and that biliary drainage through anything but the gall bladder is attended by grave risks of remote trouble. The great difficulty of secondary operations on the biliary passages, especially drainage after cholecystectomy, has been frequently impressed on him. The most important objection to extirpation of the gall bladder, when the cystic duct is ligated, is the loss of the benefits which follow prolonged drainage. The complications that occur after extirpation of the gall bladder have been due to interference with the drainage. Unless it should appear that total obliteration of the organ diminishes rather than increases post-operative complications cholecystectomy must remain the operation of necessity rather than of choice.

25. **Cholecystostomy and Cholecystectomy.**—Scudder's article is an analysis of 16 cases which are reported in detail. He formulates his opinion as regards the two procedures in brief as follows: Cholecystostomy should be done in cases of gall bladder and bile-duct surgery when quick drainage is needed for the deeper ducts and when the surgeon is not absolutely sure that the deep ducts are entirely free. Cholecystectomy should be done in cases of acute cholecystitis, in cases of cholecystitis resulting in grangrene and empyema of the gall bladder, in small contracted and infected gall bladders which are functionally useless and will not be of service in facilitating drainage, and in all cases in which the surgeon is sure that the deeper ducts are unobstructed.

Cincinnati Lancet-Clinic.

February 20.

26 *Cataphoresis, with Special Reference to Its Value in the Treatment of Malignant Disease. F. O. Marsh.

27 Ductus Pancreaticus (Ductus Hofmanli Wirsungii). Byron Robinson.

28 *Hypodermatic Medication in Italy. Charles A. L. Reed.

26. **Cataphoresis.**—Marsh describes the methods of cataphoresis, mercuric and zinc, asserting that experimental tests tend to establish the claim that cataphoresis offers unique and special advantages for the destruction and disinfection of morbid and malignant growths *in situ*. It has, he thinks, in many cases advantages over removal *en masse* by the knife, curette or actual cautery. Except in superficial growths, its action is quicker and more penetrating than the *x*-rays, but to obtain the proper results application must be made through the action of a powerful current somewhat prolonged, and used under anesthesia. It is, of course, powerless against anything but local conditions, but here, however, the ultimate results, as obtained by Massey in over 60 unselected cases of malignant disease, seem to be far superior to those of cutting operations.

28. **Hypodermic Medication in Italy.**—Reed calls attention to the greater employment of hypodermic medication in Italy, as observed by himself during a recent vacation spent in Italy. In that country the method is employed not only for the ordinary remedies thus used elsewhere, such as morphin, strychnin, etc., but for iron, arsenic, mercury, phenic acid and a long list of other remedies generally administered by the stomach. The essential feature seems to be in the method of preparation of the remedies. Whether simple or compound, they are put up in solution, carefully sterilized and kept in glass tubes, blown shut, each tube with a capacity of a cubic centimeter, containing a single dose. When administered, the slender neck of the tube is broken off and the contents sucked out through a platinum needle into the syringe, and the drug administered under the skin in the usual way, the puncture and depth being determined by the character of the remedy used. Iron is probably of foremost importance thus used, and it is employed in the anemias of various kinds; also in cases where a general tonic or iron treatment is required for other reasons. Other remedies mentioned are iodin, mercury, etc., and among the more unusual ones are trinitrin as a

vasodilator, paraldehyd as a sedative and hypnotic, hydrastin as a hemostatic, etc. He adds, in conclusion, that this form of medication is well worthy serious consideration.

St. Louis Medical Review.

February 20.

29 My Autobiography and Reminiscences. S. Pollak.

Atlanta Journal-Record of Medicine.

February.

30 Address, Atlanta Society of Medicine. Alex. W. Stirling.
31 *Some Advantages of Stapler's Rarefier in the Treatment of the Ear. Maury M. Stapler.

31. **Stapler's Rarefier.**—Stapler describes his instrument for treating aural affections. It consists of a small air pump and a tubular metal bridge from which five tubes pass, one to the air pump. The others are applied to the external meatus on each side and to the nasal orifices. The ear tubes can be held by a wire spring; the nasal tubes can be held by the patient. The mechanism of the apparatus is the inflation or the rarefication of the air in the aural passages, and the equalization or otherwise of pressure from both sides of the tympanum. He claims many advantages for it, improving the circulation and relieving abnormal conditions. A number of cases are illustrated where it has been used. Of 24 cases of congenital deaf-mutism, 10 have been made to hear and talk, and 8 others still under treatment have a practical degree of hearing and speech, and can use the telephone. Some of the deaf mutes were cured by one treatment. One child, deaf from measles, was cured in ten days.

The Post-Graduate, New York.

February.

32 *Gastritis. Achilles Rose.
33 Diagnosis and Treatment of Chronic Stone Impaction of the Common Duct. John J. McGrath.
34 Gall-duct Obstruction from a Medical Point of View. Thomas E. Satterthwaite.
35 Hydrotherapy, Electricity and Massage in the Treatment of Diseases of Children. Herman B. Sheffield.
36 Ductus Bilis (Biliary Ducts). Byron Robinson.

32. **Gastritis.**—Rose sums up his paper substantially in the following propositions: Gastric catarrh is an impossibility, and erosions of the stomach in most instances are of no clinical importance. Washing out the stomach has been overdone. Olive oil introduced into the stomach has proven of great value in pyloric stenosis. Chronic gastritis is often associated with gastric atony, and symptoms are attributed to gastritis which are sometimes in reality symptoms of gastroptosia. With pronounced gastroptosia and nervous symptoms, the former condition should be first relieved. There is no gastritis produced by mold without gastroptosia. Atonic gastritis deserves more attention than it has received. Symptoms attributed to gastric neurosis are in many cases caused by atonia gastrica.

Denver Medical Times.

February.

37 *Intubation of the Larynx and Intubation Instruments. F. E. Waxham.
38 Tunica Muscularis Ureteris. Byron Robinson.
39 Remarks on Salt. W. B. Parsons.
40 Typhoid Gangrene of the Lower Extremities. One Hundred and Thirty-four Cases. Spontaneous and Surgical Amputations (and Historical Résumé). Merrill Ricketts.

37. **Intubation.**—Waxham describes the instruments used in intubation and discusses their limitations. He speaks strongly in favor of the original O'Dwyer tube as being in every way the best fitted, and criticises all modifications that have been made on it. There are many instruments in use on the market, poorly constructed and devised, that should be condemned. Intubation is a difficult operation, requires special training and the best apparatus. It will meet with best results with early and repeated use of antitoxin.

Chicago Medical Recorder.

February 15.

41 Factors that Influence Pneumonia. W. K. Jaques.
42 *Dietetics in the Treatment of Bright's Disease. Arthur R. Elliott.
43 Mistakes of Moses. D. R. Stockley.
44 *Some Chicago Orthopedic Geography. Frederick C. Test.
45 Suprapubic Incision as a Means of Locating the Perineal Urethra. Howard Crutcher.
46 *Dysmenorrhea in Nullipara. Mary G. McEwen.
47 Some Clinical Observations on Cough. Sherman E. Wright.
48 A Painless, Bloodless Cure for Ingrown Toe Nails. Anton A. Frank.

42.—See abstract in THE JOURNAL of January 30, p. 329.

44. **Orthopedic Geography.**—Test analyzes the statistics of orthopedic cases in the dispensaries of Chicago, describing also the physical conditions, and concludes that rickety and tuberculous cases each constitute about one-third of the orthopedic cases presented at the Chicago dispensaries. Rickety deformities are commoner in foreigners, especially those from warm countries, living in close quarters. Tubercular deformities are more common in the Anglo-Saxon and foreigners from cold climates. In the region of the Stock Yards, joint tuberculosis constituted 40 per cent. of all deformities, against less than 30 per cent. for other parts of the city. This he attributes to the infection from the great number of tuberculous animals in the Stock Yards. Congenital deformities appear to be commoner in the more highly civilized peoples. These results are based, of course, on a partial study of the cases in Chicago, but he thinks the general results would be the same with more extended study.

46. **Dysmenorrhea in Nulliparae.**—Several illustrative cases are reported by McEwen, who concludes that the condition is due to an undeveloped uterus and more or less local stenosis. The poor drainage and venous stasis ultimately set up an endometritis. This produces a spasm of the sphincter of the internal os, causing the retention of blood in clots which are expelled by labor-like contractions. The heavy, anteflexed fundus causes vesical irritation. Ovaritis is of later development by the extension of the inflammation. Thorough dilatation and curettage should be done in all cases where improvement of the general health does not relieve the patient. In severe cases, further repeated dilatation with the Palmer dilator, or the wearing of an intra-uterine stem is required to permanently relieve the patient. Douching and depleting tampons are practically useless for the uterine condition, but are valuable if the ovaries are enlarged and painful. There is no tendency to spontaneous cure in most cases, and early treatment is advisable. The fact that pregnancy is Nature's cure for the undeveloped uterus should not cause the postponement of the relief afforded by simple operative treatment. These cases, in fact, are usually sterile and require dilatation and curettage to cure the endometritis before they will become pregnant.

American Journal of the Medical Sciences, Philadelphia.

February.

49 *Gastroenterostomy. John B. Deaver.
50 *Nervous Complications and Sequelæ of Smallpox. Charles J. Aldrich.
51 Case of Typhoid Fever Presenting an Arterial Complication—Probably an Arteritis. Walter R. Steiner.
52 Occurrence of Cells with Eosinophile Granulation and Their Relation to Nutrition. Eugene L. Opie.
53 Case of Seborrhea Nigricans (Black Mask of the Face). Arthur Van Harlingen.
54 Report of Two Cases of Ectopic Gestation and a Case of Intestinal Obstruction Due to Meckel's Diverticulum. Harold H. Heyer and H. M. Lee.
55 Ludwig's Angina. Report of a Case. Gwilym G. Davis.
56 Fatal Case of Poisoning with Oil of Gaultheria. J. Woods Price and Edward M. L'Engle.
57 *Significance of Urinalysis in Pregnancy, with Especial Reference to Eclampsia. Robert N. Willson.
58 New Method of Gastric Proteolysis. A. L. Benedict.
59 Thrombosis of the Midcerebral Artery Causing Aphasia and Hemiplegia. Charles W. Burr and G. E. Pfahler.
60 Report of a Case of Tumor of the Brain, an Endothelioma of the Dura; Operation; Recovery; Death in 108 Days from Recurrence of the Disease. William J. Taylor.
61 Report of Five Cases of Tumor of the Brain, with Operation. William G. Spiller.
62 *Discussion on the Surgery of Tumors of the Brain, with a Résumé of the Operative Records of Four Craniotomies. Charles H. Frazier.

49. **Gastro-enterostomy.**—Deaver reviews the conditions calling for gastro-enterostomy, including malignant disorder, bleeding from acute or chronic ulcer, marked inflammation associated with ulcerations and the contractions which they produce, extensive dilatation due to strictures, and fistulas between the biliary tract and the stomach with adhesions, intractable cases of chronic gastritis with multiple erosions at the pyloric region, hemorrhage, Reichman's disease in which the irritation of the highly acid gastric juice causes erosion of the pylorus and fissures—gastro-enterostomy places the organ

at rest—tetany, as suggested by Weir, and acute dilatation where lavage has failed, as suggested by Mayo Robson. Of the various operations he speaks favorably of the posterior method and also of Roux's operation, which he says seems to offer many advantages. He has not used the elastic ligature or Connell suture nor does he use clamps. Fowler's method of entero-enterostomy for the prevention of a vicious circle is mentioned, but Deaver does not consider that it should be done in every instance. He thinks simple posterior gastrojejunostomy is more rapid, safer and perfectly efficacious in the great majority of cases. His future method, he says, will be to perform the posterior method of anastomosis or the Roux Y operation, and in the event of vomiting following the former method, he will reoperate, divide the afferent limb just below the stomach and implant it, as in the Roux Y, into the efferent limb, some 10 or 15 cm. below the stomach, closing the shallow sac above close to the anastomotic opening. The after-treatment of gastro-enterostomy is of the greatest importance. Shock, vomiting and pneumonia should be guarded against. He uses the hot-water bed, hot bottles and a cotton jacket during the operation, with the greatest care in anesthesia. In shock, before all other remedies he uses saline solution by the bowel, at first combined with whiskey, and later intravenously, if the patient's condition demands it. Vomiting is dreaded, and while he usually allows liquid food eighteen hours after the operation, any nausea is an indication for its discontinuance and substitution of rectal feeding. For the vomiting, the best treatment is gastric lavage, using small quantities of water at a time, and giving absolutely nothing by the mouth. He thinks careful suturing is a better safeguard against peritonitis than any mechanical appliance.

50. **The Nervous Complications of Smallpox.**—Aldrich's article is largely a review of the literature. He thinks we have as a complication or sequel of smallpox a disseminated encephalomyelitis which possesses clinical features and pathologic changes entitling it to be considered as a distinct entity, and that it is sufficiently frequent to demand a special study. It also occurs with other infectious diseases. Of the 15 cases that he has found in the literature all presented more or less ataxia in the four extremities, most marked in the legs, slowness and awkwardness of movement, slow, monotonous, explosive speech, faulty articulation, varying degree of mental degradation and a decided tendency toward recovery. Several cases are reported.

57. **Urinalysis in Pregnancy.**—The relation of the condition of the urine to puerperal eclampsia is the subject of Willson's article. In answer to the question whether eclampsia can be guarded against by careful attention to the condition of the urine, he thinks the following conclusions are warranted:

1. Careful urinalyses should be carried out in all cases of pregnancy at frequent intervals, and with increased frequency as term is approached. 2. The most dependable indications of impaired renal function and of probable eclampsia have been shown by general experience to be the presence of decided quantities of serum albumin, the diminution of the eliminated urea, and the presence of a microscopic renal sediment (casts, renal epithelium, blood, etc.). The character of the latter, when accompanied by the well-known clinical signs of nephritis, always constitutes a working basis for an estimate of the probability of imminent danger. 3. Even if the urine appear perfectly normal the possibility of eclampsia must be considered, especially in young women. Eclampsia in such cases is of equal severity with that of cases in which the urine has given due warning of impaired renal functions. 4. When eclampsia supervenes on labor in a subject with previously (apparently) healthy kidneys, the tendency subsequently is toward a return to normal renal functions if the patient survives. This circumstance would seem to indicate still more strongly that the kidneys may actually have been normal up to the time of a temporary embarrassment and suspension of function. 5. Until the nature and ultimate cause of uremia and eclampsia are more thoroughly understood, it would appear that urinalysis, though not an unerring guide, is our most favorable index of the condition of the kidneys and our most trustworthy source of information as to danger from such forms of toxemia. 6. The prognosis seems to be vastly improved if eclampsia be combated by generous bleeding, followed by venous transfusion with normal salt solution. These measures reduce and dilute the poison in the circulation, and relieve the cardiac distress. Free diaphoresis and purging are, of course, indicated.

62. **Tumors of the Brain.**—Frazier's article concludes with a summary of the operative records of cases reported. He sums up, in brief, as follows: 1. The prophylaxis of shock should be specially cared for. This best reduces the mortality. The most important measures are the avoidance of prolonged operation, excessive hemorrhage and unnecessary rough manipulation of brain substance. 2. A given area of brain can be exposed with the least minimum degree of trauma and greatest economy of time by the electric engine. 3. Temporary closure of the carotids in operations on the brain is ineffectual and not entirely safe. It should be reserved for extreme cases and used only on one side. 4. Blood pressure observations should be made immediately before and at varying intervals during the operation. They furnish the most reliable index of the patient's condition, and the only exact method of determining whether the operation should be carried on or not in two stages. 5. Two-stage operation is indicated where there has been a decided fall of blood pressure after relief from intracranial tension, such as follows reflection of the Wagner flap and dura. 6. Lumbar puncture to relieve pressure is a temporary and not altogether safe procedure. 7. Bulging of the brain is one of the most embarrassing things in cerebral operations. A distinction may be made between that following reflection of the dura, "initial" bulging, and that following subsequent exploratory manipulation, "consecutive" bulging. 8. "Initial" bulging is always due to the increased tension exerted by the tumor. It is not always present and often not excessive, and is not likely to be followed by "consecutive" bulging. 9. "Consecutive" bulging is due to the cerebral edema set up in the normal brain tissue by trauma. It far exceeds in magnitude the "initial" bulging, and suggests the absence of a tumor of considerable size at the seat of operation. 10. In order to avoid this "consecutive" bulging, exploration should be carried out most expeditiously. 11. When the edges of the dural wound can not be approximated without undue tension or great laceration of the brain substance, the gap should be closed by a graft taken from the pericranium, provided the tumor has not been found and the accuracy of diagnosis is questionable. 12. When there is every assurance of a tumor being present, but it proves inoperable or was imperfectly localized, no attempt should be made to close the dura, as this would counteract the best palliative effects of the operation. 13. Palliative operations should be regarded as not merely operations of propriety, but should be considered imperative when the tumor can not be found or removed. 14. A statistical study of the results of the last five years is encouraging. The mortality has been materially reduced, and recurrence after operations for malignant growths of the brain is no greater than after operations for malignant growth of other structures.

Physician and Surgeon, Detroit and Ann Arbor.

December.

63 *Report on the Results of the Use of the Elastic Ligature (McGraw) in Fifteen Cases of Gastroenterostomy. Charles B. Nancrede.
64 *Surgery of the Stomach. Cyrenus G. Darling.
65 Comments, Not for Controversy, but for Light. Ephraim Cutter.
66 The Butler Typhoid Epidemic. Guy C. Keller.

63. **The McGraw Ligature.**—Nancrede advocates the use of this method in gastro-enterostomy, claiming that it is simpler, safer, more quickly performed, requires less complicated instruments and is adapted to the majority of cases that require gastro-enterostomy for their relief. It is contraindicated only in cases where the matter of time is of importance and immediate communication between the stomach and intestine is demanded.

64. **Surgery of the Stomach.**—Nineteen cases of operations on the stomach are briefly reported by Darling, who insists on the value of operative interference in averting starvation, relieving discomfort and prolonging life. He points out the comparative safety in exploratory work, the low death rate following resection and the comparative safety of gastro-enterostomy.

Laryngoscope, St. Louis.

January.

67 *Dependence of Aural Affections on the Nose and Throat. H. E. Smyth.
68 Interesting Laryngo-pharyngeal Tumor. Henry G. Ols.

67. **Dependence of Aural Affections on the Nose and Throat.**—Smyth holds that while nasal disease predisposes to oral infection there is less danger than usually thought, and that

excepting in specific growths the greatest danger is from disease of the nasopharynx. Many of the ear affections accompanying nose and throat disease may be due to a general tendency, rather than to a direct extension. Nevertheless, to successfully treat aural affections it is a wise precaution to carefully examine the nose and throat and correct any pathologic conditions.

Bulletin of the Johns Hopkins Hospital, Baltimore.
January.

69 *Tuberculosis of the Urinary System in Women. Report of Thirty-five Cases. Guy L. Hunner.
70 The Second Hospital in the Colonies, the "Coole Springs of St. Maries," Maryland, 1698. J. Hall Pleasants.
71 Some Unusual Forms of Malarial Parasites. Mary E. Rowley.

69. **Tuberculosis of the Urinary System in Women.**—From a study of 35 cases in the service of Howard A. Kelly and his associates, Hunner deduces in substance the following: Urinary tuberculosis in women is a disease of early adult life. It is usually primarily in the kidney, though in about half of the cases bladder symptoms are complained of. It is confined to one side in the vast majority. If involving both sides a very painstaking examination must be made of both urines to determine whether the treatment is to be surgical or medical. The disease should be kept in mind in dealing with any symptoms referable to the urinary tract; even such ordinary occurrences as a supposed movable kidney or incontinence of urine should be carefully investigated. Appendicitis and gallstone colic must be differentiated. Any obscure or atypical cases of malaria or typhoid fever should suggest the possibility of the disease. The condition is compatible with long life and comparative health, and macroscopic and microscopic examination of the specimens showed that in some cases there is a tendency to heal spontaneously, but in spite of these facts it is preeminently a surgical disorder. The article concludes with a summarized report of cases.

Medicine, Detroit.
February.

72 *Address, National Association for the Study of Epilepsy and the Care and Treatment of Epileptics. Wharton Sinkler.
73 *Surgical Treatment of Epilepsy. J. Chalmers DaCosta.
74 *Psychologic Aspects of Epilepsy. Wm. P. Spratling.
75 *Consideration of the Epileptic by the Courts. John B. Chapin.
76 *Care of Epileptics in Private Practice. William N. Bullard.
77 Progress of the New Jersey State Village for Epileptics. Henry M. Weeks.
78 Diagnosis of Atypical Forms of Epilepsy. Albert C. Buckley.
79 *Blood in Epilepsy; Experiments on Animals. F. Savary Pearce and L. Napoleon Boston.
80 Spasmus Nutans. Curran Pope.

72. **Epilepsy.**—Sinkler's address covers the subject of the recent advances in the knowledge and treatment of epilepsy, especially the sanatorium treatment. It is not readily abstractable, but is well worth reading.

73. **The Surgical Treatment of Epilepsy.**—DaCosta favors the use of surgery in certain cases, though he admits its hopelessness in the majority. Uncomplicated cases of essential epilepsy should not be operated on, for operation will never cure them, but it is justifiable to relieve special symptoms such as localized headache, etc. Good results have also been claimed with excision of the cervical ganglia of the sympathetic. Kocher, on the theory of increased intracerebral pressure, advocates operation even in this type. Idiopathic epilepsy with focal symptoms, if operated on early enough, may offer some hope of relief, but after two years' continuance the hope of cure is markedly less, as the associated fibers are often hopelessly degenerated. Still, even in old cases if the attacks occur with sufficient frequency as to cause exhaustion and threaten life, the excited cortical centers should be excised. This benefits many, but saves the life of few, and it has the disadvantage of leaving a paralysis, though except as to the finer movements, this is usually temporary. When jacksonian attacks develop in idiopathic epilepsy the treatment should be the same as in dealing with partial epilepsy or focal epilepsy from the beginning. In traumatic epilepsy a careful investigation should be made. It may be merely a coincidence and there may be no localized brain damage. Every operation is an exploratory one. If a scar on the scalp is found it should be excised, as Keen has pointed out that severe irritating impulses from a scalp scar may induce epileptic attacks. With evidences of skull injury or depression, trephining is imperative and somewhat promising. When jacksonian epilepsy has followed an injury in the motor region the chances of effecting a cure are much better than when the epilepsy has followed an injury in the sensory region. When it has followed an injury in the frontal region there is very little hope of cure. He sums up the general conclusions as follows:

> Operations for epilepsy are distinctly disappointing and rarely curative, and are indicated in only a small proportion of cases. They frequently produce temporary benefit. They may save life, but they are not entirely free from danger, and occasionally leave the patient worse than before. The mortality, though small, is not inconsiderable. The actual number of complete recoveries is probably under 5 per cent. No case should be claimed to have been cured until from three to five years has elapsed since the operation. Even after operation medical treatment and supervision should be exercised for a long period of time.

74. **The Psychologic Aspects of Epilepsy.**—Spratling describes the various types of mental disturbance from slight clouding, through feeble-mindedness, imbecility to idiocy and epileptic dementia and acute confusional insanity with hallucinations, etc., and also paroxysmal conditions.

75. **The Epileptic Before the Courts.**—Chapin finds as a result of observation that epileptics do generally show some mental failure such as defective memory, irritability, a tendency to become suspicious and revengeful, etc., emotional, and sometimes an intensification of the moral and religious side of their nature, and that these changes become more marked during the interval between convulsions as the intervals between seizures diminish. In every medicolegal inquiry where epilepsy is suspected it is essential to establish the existence of a paroxysm, beyond a reasonable doubt, and where epilepsy is raised as a defense, and mental and moral degeneration has actually taken place, and convulsions can be proven, the defense is entitled to acquittal and to be disposed of as provided in such cases. If a person has committed a criminal act, has had epileptiform seizures in infancy or at some period has had an epileptic convulsion and the criminal act was not committed near to or succeeding the seizure, and no mental failure is shown, the best he can expect is conviction with a recommendation to mercy if the charge is proven. The convulsion is not the actual disease, but the outward manifestation of a complex psychic and psychical condition due to disease, vicious habits, traumatism or unfortunate heredity. Where convulsions appear at long intervals experience shows that mental and moral degeneracy sooner or later occurs.

76. **The Private Treatment of Epilepsy.**—Bullard says there is only one form of drug that can be generally relied on, that is, certain bromid salts. The most important thing in the general treatment is suitable regulation of the life. In the mildest cases with little or no mental impairment, it is better to continue the ordinary occupation, but regulating the brain work so as to avoid sudden mental exertion or strain and an excess of worry or anxiety. If the choice of occupation is still before the patient, he would advise such as bring the least mental exertion while affording sufficient regular occupation and healthful environment, such as farming or other outdoor occupations. The digestive functions must be looked after, and he thinks the ordinary mixed diet is suitable for the epileptic. He need not absolutely abstain from meat, but it is important to regulate the quantity of food; there should be no overeating. The teeth should be carefully looked after and mastication attended to. Anything that disagrees with the patient, of course, should not be employed. He should have as variable diet as is compatible with his digestive powers. Alcohol, as a rule, is to be avoided. Tobacco in moderate amount does not seem injurious. Tea and coffee should be limited and their action watched. The epileptic should have all the sleep ordinarily required, but napping in the daytime is to be avoided as possibly favoring attacks. Moderate, regulated physical exercise is best; excess or lack of it is harmful. Fresh air is very important and freedom from mental excitement and shock is essential. Among the bromids he favors bromid of soda, holding that it is perhaps the most satisfactory, but the bromids are only adjuncts to other treatment, such as the regulation of diet, sleep and occupation.

79. **Blood in Epilepsy.**—Pearce and Boston from the blood count of a series of 7 idiopathic epileptics conclude that there is a fairly well-marked chlorotic type of anemia in these cases. There was a leucocytosis also in all but 1 of the 7 cases. There is no conclusive evidence of a change *per se* in the cells themselves, but it is possible that a toxin may be circulating. They report at some length experiments by injecting epileptic blood into rabbits which seem to show that there was a profound toxemia set up in the animals. There was a rise in the hemoglobin and increase of leucocytes, decrease of red blood corpuscles, increase in eosinophiles and decrease of polynuclear cells. It did not produce distinct convulsions in the rabbit, but the blood changes were suggestive of a toxemia. The changes were in striking contrast to those noted in ordinary septic processes where the polynuclears increase and the eosinophiles develop rapidly.

Proceedings of the Philadelphia County Medical Society, Philadelphia.

January 30.

81 Nauheim and the Schott Treatment. A. Helena Goodwin.
82 *Operative Treatment of Malignant Disease of the Mammary Gland, Rectum, Penis and Lip. William L. Rodman.
83 *Study of 91 Cases for the Relief of Various Forms of Hernia with Their Complications. Orville Horwitz.
84 Acute Appendicitis. Leon Brinkmann.
85 Case of Resection of the Elbow, Showing Results of the Operation. Gwilym G. Davis.

82. **Cancer.**—Rodman gives the results of treatment of malignant disease of the breast, which he thinks is too optimistically considered by American physicians. Its death rate is rather larger than it has been estimated by some. He thinks it is conservative, however, at the present time to say that at least one-third of the cases ought to be cured. Malignant disease of the penis is nearly always a carcinoma, and it is a mistake, he thinks, to neglect glandular involvement in the groins whether it is apparent or not. The immediate mortality of the operation should be slight. Rectal growths on the whole are not all hopeless, especially if operated by the perineal route. He thinks we can get a larger percentage of cures than Butlin reports, namely, 21 per cent. Carcinoma of the lip is the most hopeful of all malignant disease. The primary mortality may be as large as Butlin estimates, but the proportion of cures reaches 53 per cent., according to his figures. Rodman believes that surgeons at the present time are curing more than one-half of their cases. The operation should be thorough, opening the submaxillary triangle whether apparently infected or not.

83. **Hernia.**—Horwitz would use general taxis for a short time followed by operation, which is not dangerous in strangulated hernia. After inflammation exists, taxis should not be performed. No one method is suitable for the radical cure of all cases; Bassini's method is best for the majority, and Bloodgood's where a large abdominal ring and weakened conjoined tendon exist. Palliative operation is applicable to many selected cases of reducible hernia where protrusion can not be kept in by a truss, and also in some forms of incarcerated hernia. Radical cure may be safely attempted on both rather old and young patients. The truss should be worn after the palliative operation. Where no routine method can be employed the surgeon should do the best he can to remove the neck of the sac on a level with the parietal peritoneum, and if possible firmly close the opening after removal of the sac; he should obliterate the depression of the peritoneum in the vicinity of the internal abdominal ring, bringing the structures in apposition and closing the aperture through which the hernia protrudes. An aseptic result with primary union is essential for the success of radical operations. In case of undescended testicle every effort should be made to save and transplant the organ. For umbilical hernia, Mayo's operation is probably the most satisfactory. Absorbable sutures are preferable to non-absorbable material in hernia operations.

Virginia Medical Semi-Monthly, Richmond.

February 12.

86 Intestinal Obstruction from Meckel's Diverticulum. Stuart McGuire.
87 Dangers of the X-ray Operator. John T. Pitkin.
88 Some Thoughts on the Functions of the Nervous System and the Importance of Organic Education. G. W. Drake.
89 An Accidental Cure of a Case of Papilloma of the Bladder. Orville Horwitz.
90 Recovery After Numerous Fractures, Lacerations, etc. L. R. Fuller.

American Practitioner and News, Louisville.

January 15.

91 The Management of the Insane and How to Minimize Casualties. T. P. Satterthwaite.
92 Antidiphtheria Serum. Hugh Boyd.
93 Mode of Transmission of Infectious and Contagious Diseases. Ewing Marshall.

Northwestern Lancet, Minneapolis.

February 15.

94 Diseases of the Prostate, with Especial Reference to Hypertrophy of the Organ. George G. Eitel.
95 Perineal Prostatectomy. J. W. Andrews.

Medical Fortnightly, St. Louis.

February 10.

96 Myocarditis. L. C. Taylor.
97 Retro-peritoneal Abscess. Francis Reder.
98 Dislocation of the Left Hip of Three Months' Standing—Bloody Reduction with Resection of the Head of the Femur. A. H. Meisenbach.

Medical Age, Detroit.

February 10.

99 Treatment of Typhoid Fever in Children—Report of Some Cases of Interest During the Typhoid Epidemic at Butler, Pa. Benj. H. Brewster.
100 Growing Importance of the Possibility of the Dislocation of the Human Viscera. T. M. Hammer.
101 Tuberculosis Cutis. G. P. Edwards.

Merck's Archives, New York.

February.

102 Relationship of Chemical Structure to Pharmacologic Action. Frank S. Meara.
103 Index of Diseases Alphabetically Arranged with Their Modern Treatment. (Continued.) G. Bjorkman.
104 Drug Treatment of Pulmonary Tuberculosis. H. E. Stroud.

Bulletin of the Kentucky State Medical Association, Louisville.

February.

105 Early Operation for Appendicitis, from a Pathologic Standpoint, Verified. J. G. Carpenter.

Fort Wayne Medical Journal-Magazine.

January.

106 Impotency. J. L. Gilbert.
107 Best Methods in the Treatment of Tuberculosis. Wm. A. Dickey.

Interstate Medical Journal, St. Louis.

February.

108 What Value Has the Knowledge of Pseudo-hermaphroditism for the Practitioner? Franz von Neugebauer.
109 Operative Treatment of Rigid Flatfoot—Report of a Case. Removal of the Scaphoid. Nathaniel Allison.
110 Pneumococcic Infection of the Respiratory Tract—a Contribution to the Etiology of "Colds." John Zahorsky.

Canadian Practitioner and Review, Toronto.

February.

111 Medicolegal Autopsy. G. Silverthorn.
112 Some Views Regarding Puerperal Infection and Its Treatment from Our Present Day Viewpoint. H. Meek.
113 The Radical Cure of Hernia. A. Groves.
114 Chronic Rheumatism and Neuritis. James J. Walsh.

Pacific Medical Journal, San Francisco.

February.

115 Some Medicolegal Facts in the Practice of Hypnotism. William L. Howard.
116 Los Angeles Medically Considered. Walter Lindley.
117 The Plague of Lust. R. W. Shufeldt.
118 Libertinism and Marriage. R. W. Shufeldt.
119 Improvement in Iron Medication. Archibald Church.

Texas Medical Journal, Austin.

February.

120 Does the Germ of Yellow Fever Have Its Permanent Host in the Stegomyia Fasciata? J. P. Oliver.
121 Tonsilitis. W. N. Brooks.
122 Intestinal Obstruction from Meckel's Diverticulum. Stuart McGuire.

Memphis Medical Monthly.

February.

123 Acute Intestinal Obstruction. Jere L. Crook.
124 Some Popular Fallacies Concerning the Use of Spectacles and Eyeglasses. J. W. Price.
125 Fundal Incidental and Cervical Unavoidable Hemorrhage. J. L. Andrews.
126 Some Interesting Results in Minor Surgery. Hansford L. Farris.
127 Floating Liver; Report of a Case. W. H. Deaderick.
128 Bacteriology of Pleurisy. N. S. Ferry.
129 Pleural Complications and Sequelæ of Pneumonia. O. S. McCown.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

February 13.

1 *Puerperal Sepsis. Peter Horrocks.
2 Fifty Consecutive Intra-abdominal Operations on the Ovaries, Fallopian Tubes and Broad Ligaments. James Swain.
3 Remarks on Five Successful Hysterectomies for Fibroid Disease in One Family. J. MacPherson Lawrie.
4 Ovaro-Hysterectomy (Porro). T. H. Sweeny.
5 A Note on Porro's Operation and a Suggested Modification. William H. Horrocks.
6 Case of Vesicular Mole of Unusual Size. Thomas S. Jones.
7 *Some Deceptive Abdominal Conditions and the Question of Operation. A. H. Tubby.

1. **Puerperal Sepsis.**—Under this head Horrocks includes puerperal sepsis of the malignant type, puerperal sapremia, pelvic cellulitis, peritonitis, pyemia, phlegmasia dolens and milk fever. The first is the most important and serious, though some of the others may occasionally be fatal. Horrocks names as causes contagion from other similar cases, erysipelas, the handling of dead bodies, suppurating disorders, etc. He believes that some cases occur through no fault of the physician, nurse or other person, but there must be some infection, nevertheless. Meddlesome midwifery of all kinds is objected to. He does not even use the binder, and thinks it is the best plan for the obstetrician to use an india-rubber glove in making his examinations and manipulations. Vulvitis, urethritis or vaginitis, specific or otherwise, should be attended to before labor, if possible. If the labor is already in process when such a condition is found, the physician should do his best by copious syringing before the child is born to wash away as much infectious secretion as possible. Perfect asepsis of the vaginal walls is, of course, impossible, but many of the microbes can be put out of activity. The question arises in sepsis whether it is a sapremia or septicemia, and if there is plenty of milk secretion and lochia, and if the latter is offensive, it is probably sapremia. In such cases it is best to give an anesthetic and remove from the interior of the uterus with a disinfected finger any piece of placenta, membrane or clot or decomposing matter and to follow this by an antiseptic douche. Many cases will improve without this digital exploration, but others require it. If the milk is getting scanty or suppressed and the lochia, too, are diminished or suppressed, and not offensive, and the temperature is high it is probably a grave case of puerperal sepsis and the same course should be followed. He is not sure that curetting the uterus is not a good plan if done early. Antipyretics and germicidal solution to the uterus direct are suggested by some. He has had a large experience with antistreptococcic serum. In some cases it seemed to act wonderfully well, but it fails so often that it is unsatisfactory. He injects subcutaneously 20 c.c. at a time in the anterior surface of the body, under aseptic precautions. It should be repeated so that the patient gets 60 c.c. within the first twenty-four hours, and 20 c.c. twice a day after that. Any local wounds or injuries should be thoroughly treated. He has had no experience with hysterectomy. He thinks it may be successful if done early, but does not think it is likely to become a recognized practice. The same applies to opening the peritoneum and washing out. A physician who has a case of puerperal sepsis should discontinue his midwifery practice, although it is possible for him to thoroughly antisepticize himself, especially his hands, so that he can resume general surgical practice. He insists on the importance of avoiding examinations as much as possible and of not allowing the nurse to make any examinations. If she has already done so, syringe the vagina with a germicidal lotion.

7. **Deceptive Abdominal Conditions.**—Tubby reports nine cases in which various conditions, such as traumatic rupture of the bowels, perforations, pyosalpinx, pelvic cellulitis, etc., were present, but in which the symptoms were obscure at first. He specially remarks on the puzzling conditions in appendicitis, and on the importance of the leucocyte count as an aid to the diagnosis. Where the general symptoms are severe and the leucocyte count over 12,000 or 14,000 he would not hesitate to operate, as suppuration is possible. He thinks that the cases reported teach that many abdominal lesions are latent for a time so far as their symptoms indicate, and that they then suddenly become acute and that cases commencing acutely often subside and apparently progress favorably, but that they later break out again virulently, ending fatally, the favorable opportunity of the latent period not having been grasped. When general symptoms of suppuration are present it is sometimes impossible to show what particular organ is affected, and we have no data on which to commence our exploration. Lastly, there is the danger that if we do find the focus of suppuration we may not be able to limit it and prevent its spread. The important symptoms which we can not neglect are, first, the pulse and temperature, which may be entirely disproportionate to each other (a normal temperature with a pulse rate of 100 or over, or a subnormal temperature with a rising pulse are both abnormal conditions); second, leucocytosis; third, rigidity. Vomiting is a variable sign. If it recurs, in spite of careful feeding, it is not to be underestimated. In the later stages of abdominal disease distension is an important symptom. If it lasts for more than twenty-four to thirty-six hours and is unrelieved by treatment such as turpentine enemas, it is of grave significance. Diarrhea in the course of acute appendicitis is generally a sign of septic absorption and local tenderness is always of value as a guiding point to the site of the lesion. Hematemesis and melena persisting after injury or in association with suspected gastric or duodenal ulcer may indicate operation. The presence or absence of increasing abdominal dullness is an important factor in doubtful cases and effusion of blood beneath the abdominal walls can be taken in account, in consideration of other symptoms as above, as indicating possible laceration of the parts. When the symptoms in the beginning indicate an abdominal disorder and the patient remains ill, careful examination of the chest should be made and the detection of either a pleuritic rub or fluid in the pleural cavities may serve as an indication that mischief is going on and that exploratory operation is called for. Pleurisy and perigastric abscess and subdiaphragmatic abscess secondary to appendicitis are well known to be associated.

The Lancet, London.

February 13.

8 Case of Adams-Stokes Disease (Persistent Slow Pulse with Epileptiform Fits). Percy Kidd.
9 *Significance of the Zoological Distribution, the Nature of the Mitoses, and the Transmissibility of Cancer. E. F. Bashford and J. A. Murray.
10 *Etiology and Treatment of Suppuration of the Labyrinth. William Milligan.
11 Filaria Perstans and the Suggestion that It Belongs to the Genus Tylenchus (Bastian). George C. Low.
12 Iodid Rash in a Syphilitic Patient Resembling a Variolous Eruption. Ernest J. Hynes.
13 *Cancer in Australia: A Comparison with Other Countries, Together with a Specific Treatment for the Prevention and Arrest of the Disease. (To be continued.) G. Cooke Adams.
14 An Unusual Case of Cerebral Abscess; Bilateral Temporosphenoidal Abscess; Operations; Recovery. A. L. Whitehead.
15 *On Latent or Intermittent Nasal Obstruction. Mayo Collier.

9.—See editorial in this issue.

10. **Suppuration of the Labyrinth.**—Milligan describes the processes and reports cases. He lays down the following points as to the guides to operation:

1. In any case of suppurative middle-ear disease where well-marked nerve deafness on the affected side is accompanied by frequent attacks of vertigo and sickness and by nystagmus, either constant or intermittent, a careful search should be made for the presence of any fistulous tract leading into the labyrinth. If found such tract should be opened and explored; if not found, however, an exploratory opening through the horizontal semicircular canal or foot plate of stapes is justifiable. 2. In all cases of suspected labyrinthine disease of septic origin the vestibule should be promptly opened. 3. In cases of chronic suppurative middle-ear disease accompanied by the presence of cholesteatoma and erosion of the external labyrinthine wall free opening of the area of involvement should be effected. 4. In cases of suspected cerebellar abscess accompanied by symptoms indicative of labyrinthine involvement the operative pathway should be via the middle and internal ear to the posterior surface of the pars petrosa—in other words, through the median wall of the mastoid antrum. In this way the labyrinth is opened up, the anterior portion of the corresponding cerebellar lobe is exposed, and any extradural abscess lying on the posterior surface of the pars petrosa would at the same time be located and drained.

13. **Cancer in Australia.**—In Australia cancer seems to be excessively prevalent among the foreign born, while the native

born, according to Adams, largely escape. Thus among the Australian born the proportion of death from cancer per 100,000 is 22.6; British born, 203.1, and among those of German, French and Scandinavian birth, it is still higher. Of the foreigners in Australia the Americans seem to be least liable, though far more liable than the native born, the ratio among them being apparently about the same as it is in the United States. Of the provinces or states of the Australian Confederation, cancer seemed to be most prevalent in Victoria and least so in Western Australia. He attributes considerable of the liability to cancer to alcoholism and syphilis. He thinks the comparative immunity of the Australian born is largely due to the character of the indigenous foliage, especially the eucalyptus trees. He has never found any evidence of cancerous disease among the indigenous animals, and aboriginal Australians appear to be practically immune. The theory he ventures to offer and on which his treatment is based is stated by him as follows:

> That the origin of cancer (carcinoma and sarcoma) is not due to a bacterial, parasitic or local cause, but is to be looked for in the blood in the form of an unknown chemical constituent (which, for the purpose of description, I will call "malignic acid"), capable of gradually becoming virulent under certain bad climatic, hygienic, dietetic and social conditions of life, chiefly manifesting itself at its greatest virulence after 40 years of age, the degree of virulence and the age at which it may manifest itself being entirely dependent on the age and constitutional condition of parents at the time the "malignic acid" diathesis is transmitted and according to the mode of living, environment and exposure to the exciting causes after birth. This "malignic acid" when excited into virulence in its passage through the blood stream may attack any soft or bony tissue in any part of the body the physiologic resistance of which has been weakened by one or other of the exciting causes. It matters not whether this tissue be epithelial or connective, a matrix of detached embryonic inclusions; existing benign tumors derived from a congenital, inherited, or post-natal origin; syphilitic, scrofulous, tuberculous or lupoid lesions; ulcerations and lacerations of the cervix uteri; inflammatory deposits; old scars, burns, wounds or skin lesions excited by soot or paraffin; eczema, ichthyosis, or any other irritating cause. This "malignic acid" possesses the power by a process of chemical reaction of transforming any of the aforesaid weakened tissue into malignant tissue, having particular effect on debilitated epithelial and connective tissue which has been subjected to prolonged local irritation, attacking and infecting its intracellular matrix and cells. At the same time, it sets free the latter to group together in nests or to migrate through the blood and lymph channels either to escape as excretory products or to become deposited on other distant debilitated parts of the body. I am of the opinion that the various so-called intracellular and cellular inclusions which have been isolated and so fully described by Plimmer, Schueller, von Leyden and others to be parasites, and by Nosske and Greenbough as secretion depositis, are nothing more or less than the transformed remains or deposits (which also for the purpose of description I will term "malignates") of the parent intracellular matrix, some of which has been included in the cells during the process of chemical reaction.

The article is to be continued.

15. **Latent Nasal Obstruction.**—Under this head Collier includes those cases in which the nasal passages are free during the day, but become obstructed during the night, producing mouth breathing. The cavernous and mucous membrane of the nose becomes mechanically obstructed by the increased intravascular pressure when in the horizontal position and the turbinate bodies approach the septum on either side. The erectile tissue on the floor and lower part of the septum helps to complete the obstruction, and he finds in these cases the groove in the septum which is characteristic. This intermittent nasal obstruction plays an important part in the production and recurrence of polypi.

The Practitioner, London.

February.

16 Anti-typhoid Inoculation. (To be continued.) A. E. Wright.
17 *Two Lectures on Eczema. Arthur Whitfield.
18 Diagnosis of Incipient Consumption and the Cases Suitable for Sanatoria. C. H. Cattle.
19 Enquiry Into the Value of the X-rays in Bronchiectasis. D. Barty King.
20 Simple Method of Performing Gastroenterostomy and Other Abdominal Anastomoses. B. G. A. Moynihan.
21 Review of Recent Literature on Hernia. Albert Carless.
22 Diseases of the Upper Air Passages: Considerations on Some Recent Work. St. Clair Thomson.
23 Case of Incomplete Coarctation of the Aorta; Necropsy. George R. Murray.
24 Cancer Mortality and Grouping of Cancer Cases in Chelsea. Louis Parkes.

17. **Eczema.**—From the facts here laid down and discussed Whitfield concludes that eczema can be caused by external irritants alone when they are sufficiently strong and act long enough. Certain skins are from birth of low resisting power and their owners are specially subject to attacks of eczema. Other skins have some gross and visible defect, such as ichthyosis or diminished or excessive secretion, which exposes them to more frequent irritation, and they therefore suffer in the same way. By repeated irritation or more frequently by a single powerful irritation, the normal skin may lose its resistance so that irritants hitherto inefficient to produce disease are successful. When once the resistance is broken down it can only be restored by prolonged rest and careful protection; while this state of acquired low resistance continues the conditions are indistinguishable from those of congenitally susceptible skins. As regards internal causes he thinks in many cases they are of equal importance, though he doubts whether any one of them is capable of calling forth an eruption in the absence of external irritation. Disorders of the alimentary tract have first rank, and he illustrates this by acne and rosacea forms. He remarks how much more frequently eczema is found in those who are overfed than those who eat too little; this is especially noted in babies. Aside from the question of dyspepsia he doubts whether any special line of diet should produce eczema as a rule. He has seen it as frequently in vegetarians as in others, and has known it to clear up under a minced beef and hot water diet. It is also important that we should not neglect the nervous system. Nervous shock or strain may produce it, also eyestrain, and it is perhaps a question whether the inveterate form of eczema that alternates with spasmodic asthma can not be put under this head. Lastly he mentions the lymphatic cases who are specially liable to such eruptions.

Annales des Mal. Génito-urinaires, Paris.

Last indexed page 562.

25 (XXI, No. 18.) Cas de néphrite unilatérale chronique guérie par la capsulectomie. M. Patel and P. Cavaillon.
26 *De la dilatation electrolytique de l'urètre. E. Desnos.
27 (No. 19.) Etude des tumeurs à fibres musculaires lisses de la vessie (tumors of unstriped muscle fibers in bladder). R. Cassanello (Pisa).
28 Technique des injections urétrales. C. Engelbreth (Copenhagen).
29 (No. 20.) *De la spermato-cystite algue. H. Wildbolz (Jadassohn's clinic, Berne).
30 *Traitement des urétrites à gonocoques par la methode dite de Janet. F. P. Guiard.
31 (No. 21.) Etude des abcès périnéaux et des phlegmons diffus d'origine uréthrale. B. Motz and J. M. Bartrina. Eighteen cuts.
32 (No. 22.) *Le chloroforme et l'appareil urinaire. F. Guyon.
33 Quelques cas de prostatite subaigue avec suppuration périprostatique et abcès rétro-cervico-vésiculaires. Bréchot.
34 Report of French Congress of Urology. (Commenced in No. 21.)
35 (No. 23.) Both Kidneys on Same Side. F. Cathelin.—Le rein ectopique croisé.
36 New Apparatus for Sterilizing Rubber Sounds. N. A. Miskhailoff (St. Petersburg).—Nouvel aparat pour la sterilisation des sondes en gomme. Illustrated.
37 *La methode épidurale dans les incontinences d'urine sans lésions vésicales. Masmonteil.

26. **Electrolytic Dilatation of Urethra.**—Analysis of the 25 cases reported by Desnos shows that electrolysis is not destined to supplant the ordinary methods of treating urethral strictures, but frequently proves an invaluable supplementary procedure. It renders permanent the results obtained with other methods and in occasional cases may be effectively substituted for them. In 16 patients the strictures had recurred after other treatments, but the electrolysis finally restored practically normal conditions. It is absolutely harmless and reduced the relics of peri-urethritis and urethritis, curing them completely in two-thirds of the cases.

29. **Acute Spermato-Cystitis.**—The possibility that an abscess in the seminal vesicle may perforate into the bladder is confirmed by the case described by Wildbolz.

30. **The Janet Method of Treating Gonorrheal Urethritis.**—Guiard is convinced that irrigation with potassium permanganate is a marvelously effective treatment of this condition during the first three days. Applied later than this, it is tedious, irritating and even dangerous. The strength to be used should be determined by the reaction of the mucosa in painfulness and secretions, the aim being to avoid such reaction. He warns against using more than 500 gm. of fluid for one irrigation, and mentions that cocain beforehand, by suppressing contraction of the sphincter, much facilitates the

irrigation. The fluid should be at a temperature of about 40 C. The irrigations should be made twice a day the first four days and then once a day for four days, unless the gonococci reappear, when two injections a day should be resumed. He prefers a syringe to any other apparatus for the injections.

32. **Chloroform and Urinary Apparatus.**—Guyon does not regard kidney disease as a contraindication to chloroform. The kidneys are more or less quiescent during chloroform anesthesia, and it is eliminated almost entirely in the exhalations.

37. **Epidural Treatment of Incontinence.**—Masmonteil's experience indicates that a cure may be counted on when the primary cause of incontinence of urine in children is atony of the neck of the bladder. When due to cystocele or traumatism the results are less marked. There is first a reawakening of sensation during the day, then recuperation of the tonicity of the sphincter and then gradual subsidence of the pollakiuria. Six out of 10 children were promptly and permanently cured. In 3 cases of incontinence with general paralysis, 1 of tabes and 1 of debility, the results showed that the effect of the injections is felt exclusively by the sphincter. He followed Cathelin's technic, described in THE JOURNAL, xli, page 287.

Archiv f. klinische Chirurgie, Berlin.

Last indexed page 183.

38 (LXXII, No. 1.) *The Newer Methods of Investigation and Results of Operation in Kidney Affections. H. Kümmell (Hamburg).—Die neueren Untersuchungen, etc.
39 *Circular Union of Blood Vessels with Absorbable Protheses. E. Payr (Graz).—Zur Frage der cirkulären Vereinigung von Blutgefässen mit resorbierbaren Prothesen.
40 Zur Kenntnis der Chondrome und anderer seltener Geschwülste der Gelenke. O. Langemak (Rostock).
41 Ueber Myositis ossificans traumatica (Reit und Exercierknochen). Haga and Fujimura (Japan). Five cases.
42 Eine Absprengungs-Fraktur des unteren vorderen Tibia-Randes in frontaler Ebene. Franke.
43 Ueber die isolierte Abriss-Fraktur des Trochanter minor. C. Julliard.
44 Ueber Heilung der Jackson'scher Epilepsie durch Operation. Schulze-Berge.
45 Zur weiteren Differenzierung der Gangrene foudroyante. R. Kropac (Prague).
46 Ueber die Cysten der Milz und über ihre Behandlung speziell durch Splenektomie. G. Heinricius.
47 *Ueber rezidivierende retroperitoneale. Lipome. Ibid.
48 Diagnostic Mistakes with X-Rays. F. A. Suter (Geneva).—Diagnostische Irrthümer bei Durchleuchtung mit Röntgenstrahlen nebst Beitrag zur Kenntnis der Fibula-Frakturen.
49 *Vagus und Peritonitis. G. Friedländer (Berlin).
50 *Neue Methode zur Radikal-Behandlung der Hernia cruralis. F. Cavazzani (Parma).

38. **Operative Kidney Affections.**—In Kümmell's experience at Hamburg the mortality in operative cases of kidney affections has dropped from 28 per cent. (in 168 cases), to 8 per cent. (in 98 cases), since the introduction of the new functional tests. As the operation was undertaken in one case counter to the testimony of the tests, the mortality in reality should be regarded as only 4.8 per cent. His material is reviewed in detail.

39. **Absorbable Prothesis for Union of Blood Vessels.**—Payr states that his method of magnesium prothesis in operating on blood vessels has given excellent results in the hands of Exner, Ullmann, Hoepfner and others. Those who have not found it satisfactory did not adhere strictly to his directions. He advocates it as simple, certain and free from technical difficulties. Cuts are given of vessels thus united, showing perfect restoration of the lumen after the use and absorption of the magnesium cylinders.

47. **Recurring Retroperitoneal Lipomata.**—In Heinricius' practice at Helsingfors he has observed two cases of this condition. The tumors originated in the retrocecal adipose tissue and reached enormous dimensions. One patient succumbed after partial extirpation of the second recurrence. The other is well at present after extirpation of the first recurrence. He appends the literature on the subject.

49. **Vagus and Peritonitis.**—Friedländer comments on the fact now established that the local alterations are not the sole cause of the collapse in peritonitis. He has been studying the subject on cats, applying stimuli to the vagus, sympathetic and the medulla, etc. His experiments reveal some of the laws governing the complex phenomena observed, especially the disproportion between pulse and temperature. The sympathetic, he finds, is the medium of the pains, while the vagus is responsible for the behavior of the heart and its blood vessels. He explains in detail the important part played by the vagus in peritonitic collapse. He thinks that the pulse shows when the inflammatory process has invaded the loose cellular tissue containing the nerves, thus showing that the entire peritoneum is becoming involved.

50. **New Method of Treating Femoral Hernia.**—Cavazzani passes two threads through the upper corner of the obturator foramen and through Poupart's ligament. This enables him to draw the ligament over against the horizontal ramus of the pubis. This technic proved admirably adapted for its purpose in the three cases in which he has applied it, as shown in the cuts.

Centralblatt f. Bakteriologie, Jena.

Last indexed page 621.

51 (XXXV, No. 1.) Ueber Enzyme bei Bakterien und Schimmelpilze. 2. Elastinlösende Enzyme. C. Eijkman (Utrecht).
52 Behavior of Various Tissues of Animal Organism in Respect to Tetanus Toxin. Ignatowsky.—Zur Frage vom Verhalten, etc.
53 Successful Attempts to Exterminate Mice by Means of Bacillus Cultivated from the Marmot. S. S. Mereshkowsky (St. Petersburg).—Versuche Mäuse mittelst eines aus Zieselmäusen ausgeschiedenen Bacillus in Scheunen und Schobern zu vertilgen. Corroborated by official experiences in Japan.
54 Study of Poultry Diseases. Calamida.—Zum Studium der Hühnerseuchen.
55 Ueber Toxone. N. Swellengrebel (Amsterdam).
56 Sleeping Sickness. A. Castellani (Ceylon).—Aetiologie der Schlafkrankheit der Neger.
57 No Diagnostic Value of Basophile Granulations in Blood of Malarial Subjects. M. Silberstein.—Die basophilen Körnungen im Blute Malariakranker.
58 Notes de parasitologie. B. Galli-Valerio.
59 Color Differentiation of Typhoid Colonies. S. Endo.—Verfahren zum Nachweis der Typhus-Bazillen.
60 Disinfecting Power of Painted Walls. G. C. Ghiglione (Genoa).—Ueber das desinfizierende Vermögen der Wandanstriche.
61 Modifikation des Rothberger-Scheffler'schen Neutral-Roth-Nahrbodens (culture medium). Oldekop.
62 Einige Laboratoriums-Apparate: 1, ein verbesserte Thermo-Regulator; 2, Filtrir-Apparate; Decklaszange (tongs for cover glasses). F. G. Novy (Ann Arbor). Illustrated.

Centralblatt f. Gynäkologie, Leipsic.

Last indexed page 275.

63 (XXVII, No. 52.) Eklampsie und vaginale Sectio cesarea. F. Ahlfeld.
64 *Permanent Cures of Carcinoma of Uterus. N. Flaischlen (Berlin).—Zur Dauerheilung des Uteruskarzinoms.
65 Zur Desinfektion geburtshilflicher Instrumente. C. J. Gauss.
66 *Illumination of Vagina and Pelvis. V. Frommer (Berlin).—Beleuchtung der Vagina und des Beckens bei Köliotomie und Laparotomie.
67 (XXVIII, No. 1.) Deportation of Villi and Its Consequences. J. Veit.—Verschleppung von Zotten und ihre Folgen.
68 Ein diagnostisches Zeichen für Gravidität in einem Uterus bicornis. J. Halban.
69 "Ueber Vagitus uterinus." W. Thorn.
70 Eine Modifikation des spitzen Geburtshakens (pointed obstetric hook). Durlacher (Ettlingen).
71 (No. 2.) *Man or Woman? F. v. Neugebauer.—Sechs eigene Beobachtungen von Scheinzwittertum und "erreur de sexe" aus dem Jahre 1903.
72 Zur Technik des vaginalen Kaiserschnittes bezw. Hysterotomia vaginalis anterior. W. Ruhl.
73 (No. 3.) *Eighty-seven Recent Observations of Foreign Bodies Left in Abdomen During Operations. F. v. Neugebauer.—Sieben und achtzig Beobachtungen von zufälliger Zurücklassung eines sub operatione benutzten Fremdkörpers (Arterienklemme, Schere, Schwamm, Gazetupfer, Mull-Kompresse, etc.) in der Bauchhöhle, samt einigen anderen unvorhergesehenen Zufällen intra operationen.
74 *Die chirurgische Behandlung der Retrodeviation des Uterus mittels eines neuen Verfahrens der Uterus-Suspension durch Verlagerung der runden Mutterbänder. N. Bardescu (Bucharest).
75 (No. 4.) Fall von ausgetragener Extra-Uterin-Gravidität mit lebendem Kinde (with living child). A. Czyzewicz, Jr.
76 Two Cases That Illustrate the Disadvantages of Ventrofixatio Uteri. G. W. Maly.—Nachtheile, etc., der Ventrofixatio uteri.
77 Isolierte Ruptur des Sphincter ani ext. intra partum. W. Rosenfeld.

64. **Permanent Cures of Uterine Cancer.**—Flaischlen has investigated the remote results in all the cases of uterine cancer operated on by Ruge and himself between 1885 and 1896 by the vaginal route. Of the total 48, 4 died soon after the operation; 24 have had a recurrence of the cancer, but 20 have shown no signs of recurrence to date. Seventeen of these are permanently cured after an interval of seven to nearly nineteen years. The other 3 died from a casual intercurrent disease in the interim. In 9 of the permanently cured patients the collum was affected, the corpus in 6, and in 2, both simul-

taneously. Among the patients who developed recurrences, 16 died in the first two years, 3 in the third year, and 5 were in good health for four to five years before symptoms of recurrence became apparent. The recurrences were almost all local, in the cicatrix. One of his cured patients was a woman of 30, with an extensive carcinoma involving the portio and entire left vaginal vault, declared inoperable by another surgeon. Enlarged glands could be palpated in the left parametrium. He detached the uterus on the right side and removed with it as much of the left parametrium as possible. He is confident that the enlarged glands were not all removed, but the patient has been in the best of health during the ten years since. If the 3 healthy women who died of intercurrent diseases are included among the permanent cures, the proportion of the latter is 40 per cent., and omitting them, 34 per cent.

66. **Illumination of Vagina and Pelvis During Laparotomies and Celiotomies.**—Frommer gives cuts of the retractors he uses, each of which is fitted with an electric light. He thinks that the instruments answer the purpose better than those devised by Ott (illustrated on page 454 of THE JOURNAL of August 23, 1902), as the Trendelenburg position is not required. They can be applied with the patient in any position. The parts are illuminated so perfectly that they can even be photographed by this light. The retractors can be made with one to three lamps as desired, and the whole can be boiled together or the lamps previously removed. They fit close against the convex side of the retractor or are fastened to the concave side with an opening over them for the light to stream through. The wire runs through the handle. The four varieties of these illuminating retractors are illustrated, as they have been used for a few months at Gottschalk's clinic at Berlin with constant satisfaction.

71. **Spurious Hermaphroditism.**—Neugebauer encountered 6 cases of pseudo-hermaphroditism in 1903, in 3 of which the sex had been erroneously determined. He has collected 942 cases of spurious hermaphroditism, and is convinced that these malformations are much more frequent than is generally supposed. He regards the condition as a partial phenomenon of a general tendency to malformations rather than a mere local malformation of the genital organs. He affirms that the sex is mistaken in an inexcusably large number of such cases, and that the results of such blunders have far-reaching evil effects. The purpose of his numerous articles and his large work on the subject with their wealth of cuts is to familiarize the general practitioner, the obstetrician, gynecologist and others with the various types of these malformations in which the sex is doubtful so that they will be recognized in time and properly classed and mistakes avoided. The present article has 11 large engravings. He states that a year-book for "Sexual Intermediate Forms" is published by Magnus Hirschfeld at Leipsic, and is now in its sixth year—the *Jahrbuch f. sexuelle Zwischenstufen*. Part 1, 1903, contains Neugebauer's last work on the subject. It is entitled "Surgical Surprises in the Domain of Spurious Hermaphroditism." He has also an article on the subject in the current *Interstate Medical Journal*, indexed above.

73. **Foreign Bodies Left in Abdomen After Operations.**—Neugebauer was summoned in 1899 as an expert in the law suit against Kosinski and Solman at Warsaw, instituted on account of their having left two artery forceps in the abdominal cavity at an ovariotomy. He was asked to testify in regard to the general experiences in such matters. At that time he was able to cite from the literature 108 cases, and since then he has collected 87 more, a total of 195 instances in which some foreign object was left in the body after an operation. He gives the details of this latest series, and remarks that probably many more have occurred but have not been published. The principal cause for these mishaps, he thinks, is in defective administration of the anesthetic, resulting in asphyxia and the consequent interruption of the operation and hasty maneuvers. In prevention he advises the practice of saying aloud: "Returned, one sponge," which the assistant checks off aloud. Another precaution is to have the handles of the instruments so long that they could not possibly be overlooked. Karl Schröder and Lawson Tait made it a principle to use as few instruments as possible, while Péan used the largest number of any. The smaller the number, the easier the oversight. Neugebauer himself has lately made a practice of having the husband, parent or guardian sign a certificate before an important operation stating his consent to the operation, his knowledge that there is more or less danger connected with such an intervention, and exonerating the surgeon from responsibility in case of suppuration, fistula or any unforeseen mishap, signed also by a witness. He has found that the signing of such a certificate has a very depressing effect on the family and also on himself, but regards this as a minor evil in comparison. He does not exact the certificate in families who he knows to be intelligent and reasonable, but when there is cause to suspect perfidy he invariably insists on it, or declines to operate. Certificates like this were employed in 1883 in one of the German clinics where he served for a time, but they are not in as general use in Europe as he hears they are in America. A surgeon who has once had any experience with a damage suit of this kind soon decides to exact some such protective measure.

74. **Hysteropexy by Suspension of the Round Ligaments.**—Bardesen treats retrodisplacement by making a buttonhole in each lip of the abdominal incision on the median line, and drawing the round ligament through this opening on each side. The abdominal incision is then sutured and the loops of the round ligament are sutured together over it, spread out to give space for three stitches at least. The skin is then sutured. This procedure has been performed on 5 patients, with excellent results. Its advantages are that the ligaments are fastened together, utilizing the strongest part; the support of the rectus muscles is more solid than that afforded by the previous support, and the ligaments still retain all their elasticity and strength. It is similar to Doléris' technic, but differs from it in certain respects.

Münchener medicinische Wochenschrift, Munich.

78 (LI, No. 3). *Results of Incising the Cervix. Hofmeier (Würzburg).—Ueber üble Folgen der tiefen Cervix-Einschnitte bei der Geburt.

79 Beobachtungen über Koplich'sche Flecke, Diazo-Reaktion und Fieber bei Masern (in measles). O. Müller.

80 *Ueber eosinophile Zellen im Sputum. W. Hildebrandt.

81 *New Formation of Bones. L. Baldassari and A. Gardini (Ferrara).—Ueber Knochenneubildung nach der Rippen-Resektion.

82 *The Pulse in Tuberculosis. S. Sterling (Lodz).—Ueber die prognostische Bedeutung der konstanten Puls-Beschleunigung im Verlauf der Lungen-Tuberkulose. Zugleich ein Beitrag zur Klassifikation dieses Leidens.

83 *Fall von Enterorrhea nervosa. H. Richartz.

84 *Fall von Rückenmarks-Tuberkel (in spinal cord). E. Obern-dörffer.

85 *Beitrag zur Ovariotomie in der Gravidität als Fortsetzung der Orgler-Gräfe'schen Statistik. K. Heil (Darmstadt).

86 Zur operativen Behandlung der Hirn-Syphilis (of the brain). Bayerthal.

87 *Statistisches über Splenektomie und Mitteilung eines Falles von Milz-Exstirpation wegen idiopathischer Hypertrophie. F. Bayer.

88 *Medicinische Beobachtungen aus Central-Brasilien. Mansfeld.

89 (No. 4.) *Circumscribed Sigmoiditis. A. Bittorf.—Die akuten und chron. umschriebenen Entzündungen des Dickdarms spez. der Flexura sigmoidea.

90 *Early Symptom of Severe Appendicitis. L. Moszkowicz (Gersuny's service, Vienna).—Ein Frühsymptom der schweren Fälle von Perityphlitis.

91 Ueber akute Polymyositis. J. Baer.

92 Case of Hemorrhagic Kidney Infarct. R. S. Morris (of Ann Arbor).—Fall von hemorrhagischen Niereninfarkt.

93 Vaccination in Bavaria. L. Stumpf.—Bericht über die Ergebnisse der Schutzpockenimpfung im Königreiche Bayern im Jahre 1902.

94 New Method of Testing Refraction. Van den Bergh.—Subjektive Skiaskopie. From society report.

95 (No. 5.) Anatomische Befunde bei Labyrinth-Eiterungen (suppuration). E. P. Friedrich.

96 Origin of Granulated Red Corpuscles. Naegeli (Zurich).—Entstehung der basophil gekörnten roten Blutkörperchen.

97 *Die ideopathische akute pyelitis bei Gravida. Häberlin (Zurich).

98 Suprarenin. Hecht (Munich).

99 Intense Pigmentation of Skin After Injection of Suprarenal Extract. A. Schücking (Pyrmont).—Hochgradige Hautverfarbung nach Injektion von Nebennierenextrakt.

100 *Attempt to Disprove Behring's Premises. K. Oppenheimer (Munich).—Ueber Lungenschwindsuchtsentstehung.

101 Passing of Malaria in Germersheim. Pulstinger.—Ueber das Verschwinden der Malaria in G.

102 Alleviating Operations for Incurable Cancers. Winkelmann.—Erleichternde Operationen bei unheilbaren Krebskranken.

103 Rapid Gasometric Test for Sugar in Urine. E. Riegler (Jassy).—Eine rasch ausführbare gasometrische Methode zur Bestimmung des Zuckers im Harn.

104 Improved Azotometer. A. Jolles (Vienna).—Verbessertes Azotometer zur quantitativen Bestimmung des Harnstoffes und der Harnsäure im Harne.

105 •Measurement of Pressure in Right Auricle. G. Gaertner.—Messung des Drucks im rechten Vorhof.

106 Results of Examination of Diseased Middle Ear During Last Decade. K. Grunert (Halle).—Einige Ergebnisse der pathologisch-anatomischen Forschung des kranken Mittelohres im letzten Jahrzehnt mit Streifblicken auf die Praxis. (Commenced in No. 4.)

107 Mental Disturbances in Incipient Paralysis. G. Fischer.—Ueber hochgradige generelle Störung der Merkfähigkeit bei beginnender Paralyse. (Commenced in No. 4.)

78. **Evil Results of Deep Incision of Cervix During Delivery.**—Hofmeier remarks that voices have been raised in protest against the danger of hemorrhage from Dührssen's incision of the soft parts to facilitate delivery. No one, however, has published anything in regard to the remote evils of the procedure. In 2 cases recently, a subsequent childbirth proved fatal in one case and without prompt intervention would have proved fatal in the other. The rigidity of the site of the former incisions resulted in rupture of the uterus wall just above the cicatrix. One patient had passed through two normal childbirths between the incisions and the last fatal birth. If the Dührssen incisions are deemed absolutely necessary, at least they should be made on the front and rear aspects, and not on the sides, near the large blood vessels.

80. **Eosinophile Cells in Sputum.**—Hildebrandt's extensive experience has demonstrated that the finding of eosinophile cells in the sputum has no diagnostic significance either for bronchial asthma or against tuberculosis.

81. **New Formation of Bone After Resection of Ribs.**—Baldassari and Gardini resected a part of a rib on dogs and substituted calcined bone in some and simply boiled bone in the others or left the gap unbridged. They found that there was scarcely any regeneration of bone when no foreign bone had been introduced. The calcined bone healed encapsulated like any foreign body, but the bone that had been merely boiled healed in place with an actual regeneration of new bone which had evidently utilized the salts in the foreign bone.

82. **Prognostic Significance of the Pulse in Tuberculosis.**—Sterling has become convinced that a normal pulse beat in pulmonary tuberculosis is a favorable sign. A regular acceleration of the pulse in afebrile conditions is a bad sign, proportionately to the amount of acceleration. The prognostic significance of the accelerated pulse is most important in the first stages of the disease. He has been studying the subject for three years and found that the proportionate mortality was with normal pulse during the first stage, 1; with pulse up to 120, 3.1; and with pulse above 120, 12.1. In the second stage, normal, 1; up to 120, 1.8; over 120, 6.1. In the third stage, normal, 1; up to 120, 1.1; over 120, 1.6. He suggests as an improved method of classifying tuberculous subjects to add the figure representing the constant pulse rate to that representing the first, second or third stage. By this means a much better idea of the actual condition would be obtained. For instance, II-88 would have a more favorable prognosis than I-130. Also III-88 would be more favorable than II-140. When the figures representing the first, second or third stage are used alone, this should mean that there is accompanying fever.

83. **Nervous Enterorrhea.**—Richartz reports from von Leube's clinic the case of a man of 52 who had five to twelve alvine evacuations a day, the passages consisting almost exclusively of a clear, thin fluid, the desires abruptly imperious. There were no gastro-intestinal symptoms otherwise, and during sleep and when traveling in the cars he was free from this enterorrhea. He had taken several courses of treatment at various times and places, but without avail. Treatment addressed to a supposed catarrhal affection had no effect, but a cure was obtained by daily injections of tannin with persevering use of cascara by the mouth. The fluid evacuations gradually diminished, and by the end of the third week the patient for the first time in three years passed the day without a single watery stool. The watery stools recur once in a while even now, but the desires have lost their imperious character, which rendered the trouble so unbearable. Richartz offers a theory to explain the success of the tannin and cascara treatment.

84. **Tubercle in the Spine.**—Oberndörffer differentiated the case described by the evidence of tuberculosis elsewhere, the lack of symptoms pointing to caries of the spine, the pronounced unilateral paralysis soon becoming transformed into paraplegia, the sensory paralysis, at first dissociated and later total, and the aggravation of the condition under extension.

85. **Ovariotomy in Gravida.**—Heil adds to Gräfe's statistics 5 new cases personally observed, and others he has collected, bringing the total to 241. He tabulates the later series, and emphasizes the necessity for careful examination of every pregnant woman who complains of pains or other disturbance indicating some irregularity in the genital sphere. If the diagnosis wavers between an extra-uterine pregnancy or an intra-uterine with an ovarian cyst, a laparotomy is indicated at once. An ovariotomy is by far a lesser evil than the overlooking of an extra-uterine pregnancy, especially for a patient who is not under constant medical supervision. He advocates leaving the tube, if possible, when operating during a pregnancy, to avoid traction on the uterus.

87. **Splenectomy.**—Bayer reports a favorable issue to splenectomy undertaken on a boy of 12 on account of idiopathic hypertrophy of the spleen. Since 1891, 254 cases of splenectomy have been published, all the patients recovering except 54. Classifying the cases, we find the mortality 100 per cent. in "stagnation" or amyloid spleen or hypertrophy accompanying cirrhosis of the liver; in leukemic hypertrophy it was 75 per cent. of 8 cases; in splenic pseudo-leukemia, 0 in the 1 case; in rupture, 34.9 per cent. of 43 cases; 0 in 4 cases of abscess; 0 in 3 of tuberculosis; 0 in 4 of hematoma; 7.7 per cent. in 13 cases of hydatid cysts; 20 per cent. in 5 cases of sarcoma; 50 per cent. in 2 of benign growths; 33.3 per cent. in 15 of torsion of pedicle of wandering spleen; 20.2 per cent. in 89 cases of malaria; 6.9 per cent. in 29 cases of hypertrophied wandering spleen; 17.6 per cent. of 17 cases of Banti's disease, and 9.5 per cent. of 21 cases of idiopathic hypertrophy.

88. **Medical Notes in Central Brazil.**—These notes were taken during a German medical mission in 1898-1900 in the Xingu valley. Mansfeld remarks that the Cuyaba region in particular is an eldorado for specialists who wish to study tropical and cutaneous diseases. He was very favorably impressed with the popular beverage, Paraguay tea, as a substitute for tea and coffee.

89. **Inflammation of Sigmoid Flexure.**—Bittorf's 3 cases all displayed a distinct resistance in the left iliac fossa, more or less sensitive to pressure. The temperature was 37.3 to 38 C. The bowels had been more or less irregular for a long time, generally with obstinate constipation occasionally interrupted with diarrhea. The subjects complained of loss of appetite, depression, general nervous disturbances, more rarely of spontaneous abdominal pains especially in the left lower bowel, which was aggravated by certain movements. The tenderness subsided under bed rest, laxatives and dieting, but the resistance only partially retrogressed.

90. **Early Symptom of Severe Appendicitis.**—Moszkowicz calls attention to the serous effusion in the abdominal cavity, which he has found a constant accompaniment of the severer cases of appendicitis. Out of 46 cases, an effusion was found in the abdominal cavity in 27, and in the others it may have existed and retrogressed prior to operation. He believes that this serous effusion is frequently the first sign of impending trouble, before the patient shows any other symptoms indicating a severe involvement, and liable to occur while he still feels quite well. When it is found, it should be regarded as the precursor of diffuse suppurative peritonitis, a signal for operation at once. The effusion is a sign that a large amount of bacterial toxins has already diffused into the abdominal cavity. It resembles in this respect the edema which accompanies a serious phlegmon on the leg or arm.

97. **Acute Pyelitis in Gravida.**—Häberlin has observed 8 cases of idiopathic acute pyelitis in pregnant women. The onset was stormy, with high fever, lumbar pains and generally

chills, accompanied by signs of bladder irritation. All the patients recovered rapidly in the course of one or two weeks, and no permanent injury seemed to have been done. Treatment should be expectant. If the pressure of the fetal head is causing trouble, this can be relieved by a pessary or appropriate position in bed. Large quantities of fluid should be ingested, with salol and urotropin as disinfectants. Artificial delivery is not indicated, as it would be dangerous during the acute stage, and after this is past there is no need for it.

100. **Origin of Tuberculosis.**—Among the arguments which Oppenheimer presents in opposition to Behring's views are the comparatively small number of children who die from tuberculosis during the first twelve months of life, and also the negative response to tuberculin in infants. Also the rarity of primary intestinal tuberculosis, and the fact that the gray nodules found by Behring in calves have never yet been discovered in children.

105. **Determination of Pressure in Right Auricle.**—Gaertner replies to Prym that his test should be applied to the most delicate veins, not to those that have lost their elasticity. For this reason he does not use those in the back of the hand.

Virchow's Archiv, Berlin.

Last indexed page 565.

108 (CLXXIV, No. 3.) Anatomische Stüdie über die Glandulæ parathyroideæ des Menschen. H. Petersen.
109 Ein hydrodynamisches Problem und seine Anwendung auf den Kreislauf, speziell im Gehirn (Hydrodynamic Problem Applied to Cerebral Circulation). R. Geigel.
110 *Air Embolism. L. P. Wolff (Berlin).—Experimentelle Studien über Luftembolie.
111 Ueber Pigment-Bildung und Organisation, speziell in einem extraduralen Hämatom. R. Milner.
112 Aetiologie und Pathogenese des Schwarzwasserfiebers (black water fever). A. Plehn.
113 Ueber die pathologische Anatomie des Keuchhustens und das Vorkommen der Keuchhusten-Bazillen in den Organen (whooping cough). G. Arnheim.
114 *Ueber Gallengangkarzinome, sowie über Adenome und primäre Krebse der Leberzelle (cancer in liver and biliary passages). B. Fischer (Bonn).
115 Carcinoma cylindrocellulare gelatinosum oesophagi, ein Beitrag zur Lehre der Keimversprengung (displacement of germinal tissue). Franke.
116 2 Fälle von Leber-Missbildung. H. Kantor.
117 Ueber ein Magendivertikel (diverticulum in stomach). E. Hirsch.
118 (Supplement Number.) *Acute Infectious Diseases Among the Negroes of Equatorial West Africa. A. Plehn.—Die acuten Infektionskrankheiten bei den Negern der äquatorialen Küsten Westafrikas.
119 Zur Pathogenese der Bluterkrankungen (of blood affections). S. M. Zypkin (Moscow).

110. **Air Embolism.**—Wolff's experimental research on air embolism indicates that death is not due to heart failure as much as to extensive embolism in the capillaries of the lungs, impeding the circulation. He was never able to detect the presence of air in the left heart in appreciable amounts. He offers a new explanation for the sounds heard in the heart after introduction of air in the veins, and reviews 115 works bearing on the subject of air embolism.

114. **Cancer of the Liver and Biliary Passages.**—Fischer emphasizes the fact that liver cirrhosis is noticed as accompanying adeno-carcinoma of the biliary system in 85 per cent. of the cases on record. This with other facts which he adduces, he accepts as testimony that the supposed primary cancers in the liver in reality originate in the biliary passages.

118. **Acute Infections Among the Blacks of West Africa.**—A comprehensive picture is here presented of the acute infectious diseases among the natives of the German state of Kamerun on the western coast of Africa, just north of the equator. Plehn has resided there for 8 years and has wide experience on the subject. He asserts that tuberculosis is entirely unknown there to date, even in the surgical form. Pneumonia is very prevalent among the natives, the catarrhal form, but does not seem to affect the Europeans. Articular rheumatism is frequently observed. The negro races display remarkable resistance to wound infections, to gonorrhea, dysentery and malaria, and seem absolutely immune to yellow fever. One tribe, the Duala, seems likewise completely immune to infection from syphilis. He mentions the rarity of chronic affections as a characteristic of the pathology of western Africa, as also the severity of many acute diseases. Another point to which he calls attention is that comparatively immune subjects frequently harbor the parasites of malaria. Any affection befalling them is liable to be labeled malarial on account of the discovery of the parasite, when, in reality, it has nothing to do with malaria. Beri-beri is peculiarly severe in Kamerun. In conclusion, Plehn appends a detailed bibliography on the subject. It includes 347 works, with many by American authors. Scheube has recently published a similar comprehensive study of conditions on the eastern coast.

Wiener klinische Wochenschrift, Vienna.

Last indexed page 495.

120 (XVI, No. 49.) *Case of Missing Cerebellum. G. Anton (Graz).—Fall von beiderseitigem Kleinhirnmangel mit kompensatorischer Vergrösserung anderer Systeme.
121 Zur Lehre von den Geschlechts-Characteren (sexual characteristics). P. Mathes.
122 *Consequences of Attempts at Taxis in Incarcerated Hernia. H. Haberer.—Zur Kasuistik der Folgezustände forcierter Taxisversuche bei inkarzerierten Hernien.
123 Der komplizierte akute Choledochus-Verschluss (occlusion). F. Fink.
124 Parotitis secundaria bei Pneumonie. Entleerung des Eiters durch das Gang-System. K. Pichler.
125 (No. 50.) Tribute to R. Koch on His Sixtieth Birthday.
126 *Zur Differenzierung des Cholera-Vibrio von artverwandten Vibrionen. R. Kraus.
127 *Zur Kenntniss der Pseudo-Diphtherie-Bacillen. J. Schwoner.
128 Zur Frage der passiven Immunisierung. R. Kraus and J. Joachim.
129 Ueber Katalasen in Bakterien-Infiltraten. E. Löwenstein.
130 *Ueber Bakteria-Hemolysine. R. Volk and B. Lipschütz.
131 Behavior of Albuminoids in Blood Serum During Putrefaction. E. P. Pick and J. Joachim.—Verhalten der Eiweisskorper das Blutserums bei der Faulnis.
132 *Ueber Kryoskopie und reflektorische Polyurie. G. Kapsammer. From society report.
133 (No. 51.) *Ueber Ureteren-Katheterismus und funktionelle Nieren-Diagnostik. G. Kapsammer.
134 *Celluloid Prothesis. O. Föderl.—Ueber Knochen- und Knorpelersatz.
135 Gradual Disappearance of Tumor in Upper Abdomen. R. Hoffmann.—Ueber das allmähliche Verschwinden eines Tumors der oberen Bauchgegend (chron. interstitielle Pankreatitis).
136 Fall von Pancreatitis indurativa. F. Ehler. Five months' course; simulated cancer.
137 *Reflex im Gesicht. von Wagner. From society report.
138 *Rhodan-Therapie bei Lues. Pauli and Jungmann. From society report.
139 (No. 52.) *Zum Nachweise der Tuberkel-Bacillen im Sputum. J. Sorgo (Alland).
140 *Ueber die "Hernia epigastrica." W. Friedrich.
141 *Zur Klinik des primären Endothelioms der Pleura. K. Unger.
142 Zwei seltene Fälle habituell willkürlicher Verrenkungen (voluntary dislocations). W. Heinicke.
143 *Canities prematura und Alopecia areata. Heilung durch Roentgen-Strahlen. K. Ullmann. From society report.
144 (XVII, No. 1.) Successful Treatment of Case of Laryngeal Tuberculosis with Reflected Sunlight. J. Sorgo (Alland).—Behandlung der Kehlkopf-Tuberkulose mit reflektiertem Sonnenlicht.
145 *Die Malaria-Assanierung der Aussenwerke der Seefestung Pola. O. Lenz.
146 Die Impfung in Bosnien und der Hercegovina (vaccination). G. Kobler.

120. **Case of Lacking Cerebellum.**—The cerebellum had evidently developed, but had been entirely destroyed before birth by some pathologic process, probably a softening. The cerebellar tracts in the spinal cord were also lacking. On the other hand, the cortex of the cerebrum had developed apparently to compensate the missing organ. This hyperplasia of the cortex showed normal structure throughout, and the absence of any local resistance to its growth probably contributed to its unusual development. The subject was a girl in her seventh year, the ninth child of a small, slender woman of 42. Birth was normal, but it was soon noticed that the child swallowed with difficulty and frequently choked. Her death was due to suffocation from this cause. Speech and locomotion developed much slower than in other children. Even at the age of 6 she was still unable to stand or walk alone, although the capacity for movements had progressively improved. She understood what was said to her, but did not try to talk or move about much herself. It was difficult for her to maintain her balance alone, and almost impossible for her to bend forward or backward. The general physical development corresponded to that of a child of 3. In comparison with the disturbances in locomotion noted with even minor injuries of the cerebellum, the disturbances here were remarkably slight. The excessive development of the centripetal and centrifugal tracts for the cerebral motor impulses indicated hyperfunction and substitution, and confirms the principle of self-regulation as a law for the complicated microcosmos of

the brain, as well as for the most minute living unicellular being. The brain findings are illustrated and described in detail.

122. **Taxis in Incarcerated Hernia.**—Haberer does not allow in his clinic but one single attempt to reduce the hernia. It must be attempted very cautiously, the subject reclining in a bath. If an attempt at taxis has been made outside, before the patient reaches the clinic, no further effort is wasted, but operation is undertaken at once.

126. **Differentiation of Cholera Vibrio.**—Kraus announces that the cholera vibrio does not produce hemolysins, while all the other allied vibriones do produce them.

127. **Pseudo-Diphtheria Bacilli.**—Schwoner separates these bacilli into two groups; one includes the Hofmann bacillus and the other the xerosis and Pfeiffer urethra bacilli.

130. **Bacterio-Hemolysins.**—Volk and Lipschütz have established the existence of what they call lysinoids, the result of the decomposition of lysins, partaking of the nature of a toxoid or avirulent toxin. They announce that it is possible to induce effectual immunization with these toxoids.

132. **Cryoscopy and Reflex Polyuria.**—Catheterization of the ureters is liable to cause a reflex disturbance in the secretion of the kidneys, increasing or diminishing it. When polyuria occurs it reduces the molecular concentration of the urine from the kidney in question, and this might lead to erroneous conclusions, as it simulates an insufficiency of the kidney which may not exist in fact.

133. **Catheterization of the Ureters and Functional Diagnosis.**—Kapsammer extols the value of prophylactic instillation of a 1 or 2 per cent. solution of silver nitrate or of 1 per 1,000 bichlorid when catheterizing the ureter, to prevent infection of the upper urinary ways. In 400 catheterizations he has never found a case in which the subjects were conscious of the instillations. The parts are not so sensitive as some suppose. He also announces that the assumption that the kidneys work equally and alternately is erroneous. In 21 subjects examined, the amounts from each kidney were equal in only 4. In all the others there was a difference up to a maximum of 6 c.c. in ten minutes. His experiences in extensive experimental research were also similar in this respect. In 118 separate tests one kidney always secreted more urine than its mate, with but a single exception. In 11 tests with methylene blue elimination through the kidneys commenced simultaneously in only 4. Normal kidneys in man and animals, therefore, secrete unequal amounts of unlike urine during a given period of time. The filtering capacity of the kidneys and their eliminating capacity by no means necessarily parallel each other. As a rule, they do not work alternately, and one kidney secretes more than the other. The larger outflow of urine may keep one ureter so well washed out that there is no chance for ascending infection, which is liable to occur through the other insufficiently irrigated ureter. This explains the frequency of unilateral pyelitis. In 25 cases of pyelitis he found it bilateral in only 5.

134. **Perforated Celluloid Substitutes for Bone and Cartilage.**—Föderl describes somes cases to illustrate the superior advantages for prothesis of a sheet of celluloid, closely perforated. He has used it to reconstruct the nose, the trachea and the jaw, and also in wounds of the skull. The flexibility of the celluloid, its smooth surface and the opportunity afforded by the perforations for the proliferation of new tissue in and through the holes, render it an ideal substance for the purpose. For the nose he used a sheet about .5 mm. thick, for the jaw much thicker. It heals in place without any reaction on the part of the tissues.

137. **New Eye Reflex.**—Wagner has found that slight pressure on the eyeball through the closed lid causes twitching of the zygomaticus and quadratus labii sup. This reflex was bilateral in 50 out of a 100 subjects, and was exaggerated in 2 cases of tetany.

138. **Rhodan in Syphilis.**—Pauli and Jungmann have observed marked improvement of the headaches in syphilitics after administration of sodium rhodanate in 2 gm. daily doses.

139. **Improved Technic of Sputum Examination.**—Sorgo breaks up the sputum with hydrogen dioxid and alcohol and then centrifugates. The sediment is not examined, but the supernatant fluid is decanted, mixed with equal parts of lime water and centrifugated again. This sediment is then examined for bacilli as usual. By this double sedimentation a much larger proportion of bacilli is saved for the microscope and they are preserved in better shape than by other methods. He describes the technic in detail, as also its application to other sedimentation procedures.

140. **Epigastric Hernia.**—Friedrich noted this form of hernia in 52 out of 12,724 men applying to the Budapest sickness insurance clinic for various reasons, and in 2 out of 2,557 women. He advocates immediate operation as soon as the hernia is discovered, except when it causes absolutely no disturbances and the subject is leading a sedentary life.

141. **Primary Endothelioma of Pleura.**—Unger's diagnosis of this lesion was confirmed by the necropsy. It was based on the pains in the right thorax developing gradually in a woman of 59 previously healthy, accompanied later by tormenting cough and dyspnea. The pains became intolerable at times and then subsided, leaving free intervals. There were no night sweats, no fever and no expectoration, but the patient lost weight and strength. During inspiration the intercostal spaces did not bulge out, and percussion showed absolute dullness over almost the entire side of the thorax. There was remarkable resistance to puncture; the fluid derived was hemorrhagic, and only 100 c.c. could be obtained by aspiration.

143. **Alopecia Areata Cured by Roentgen Rays.**—Ullmann's patient was treated by two exposures of fifteen minutes each on following days, the tube a medium soft one at 15 cm. distance. The hair in the vicinity fell out and the patient lamented for three months over this artificial aggravation of his condition. At the end of this time the hair began to grow normally again, darker in color than it had previously been. The treatment had evidently stimulated both the growth and pigmentation of the hair, and this result has been permanent during the six months since.

145. **Stamping Out Malaria Along the Austrian Adriatic.**—The two Brioni islands and the town of Barbariga have been freed from malaria during the last year. Lenz describes the various points learned in these efforts, which were commenced three years ago. He has found that the Koch method of giving quinin in prophylaxis—which is so effective in the tropics—is not so reliable in the malaria of the Istria region, which is mainly tertian. The parasites are ensconced in the spleen and bone marrow, and lie latent there for long intervals. In the spleen and marrow they are not affected by quinin, and are not sources of infection for others. When sporulation occurs the parasites swarm forth into the peripheral circulation, and a relapse of the malaria is noted. During the intervals no parasites are to be found in the blood, while in tropical malaria the parasites are almost constantly in the peripheral circulation where they are accessible to the quinin. In destroying the larvæ with kerosene, his experiences showed that the higher the oil was refined the better it spread out over the surface of the water and the less was required. Water thus coated could be used for drinking purposes without detriment. It did not taste of the kerosene when the water was drawn from near the bottom of the receptacle. His experience showed that a modified Grassi-Celli method of quinin prophylaxis proved the most effectual where strict control of the subjects was impracticable. Every one suspected of chronic malaria was given 1 gm. of quinin every day for fifteen days. After this they were given, with all the rest of the populace, 0.4 gm. (about 6 grains) quinin daily until the close of the malaria season. A very small amount of quinin is sufficient to kill the parasites in the peripheral circulation. It is administered in the evening so that the maximum is circulating at the time the mosquitoes are most active. The small amounts caused no symptoms of quinin intoxication, and in sugar or chocolate-coated tablets were taken readily, even by children. By this method, examination of the blood can be dispensed with, and none but the febrile be examined. The efforts

must be renewed each year, as infected mosquitoes can easily be brought in on beasts of burden, etc. The water tanks, etc., must be oil-coated every eighth day, and the populace inhabiting the outlying, intermediate zones must be quinin-protected as before. As the protected area enlarges, this outlying border will be removed farther and farther from the center in which malaria has been radically stamped out.

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147 (VIII, No. 6.) *Stab Wounds in the Thorax. F. D. Roldan.—Heridas penetrantes de la cavidad toracica.
148 (No. 7.) *Epilepsia progresiva. A. Mestre.
149 Tratamiento quirurgico del cancer uterino. E. Nunez.
150 Contusion and Suture of Kidney. R. Menocal.—Contusion del Rinon. Incision lumbar. Sutura del rinon. Curacion.
151 (No. 9.) *Complicaciones graves de las otitis supuradas. Carlos E. Finlay.
152 (No. 10.) *Nuevos metodos de tratamiento en el hidrocele vaginal. F. D. Roldan.

147. **Stab Wounds of the Thorax.**—In one of Roldan's two cases a stab in the third interspace in the back had opened a large bronchus. There was considerable hemorrhage from the vessels accompanying the bronchus. The wound in the latter was large enough to admit the little finger. To prevent hemo- and pneumo-thorax, he tamponed the depths of the wound and fastened the pleura surrounding the wound to the lips of the incision. The wound healed in two months. In a second case the knife had injured the pericardium and entered the diaphragm, but the hole in the latter was too small to fear injury of viscera below. The wound in the pericardium was not sutured, but merely drained with a small gauze wick, as at the touch of the fingers the heart action became much accelerated. The pleural cavity was packed with gauze, the skin sutured, and a compressing bandage applied. The patient was dismissed cured three months after his injury. Roldan discusses the literature on the subject of stab wounds of the pericardium, etc., and gives cuts of the after-appearance of his two patients, both mulattoes.

148. **Progressive Epilepsy.**—In the case described by Mestre the patient was a youth of 17, previously healthy. A few months before entering the hospital he had commenced to exhibit epileptiform seizures, gradually growing more and more severe and frequent, the spasms involving various limbs, not always simultaneously, but finally becoming practically generalized. The seizures grew more and more frequent during the last five days, with unconsciousness and death. The necropsy showed lesions in the zone of Rolando, pin-head, gray granulations along the vessels, surrounded with a gelatiniform exudate, on the ascending frontal and parietal convolutions, most numerous on the left side. The paracentral lobule was intact, as also all the rest of the cortex, except for indications of hyperemia.

151. **Complications of Suppurative Otitis.**—Finlay emphasizes that a patient with a suppurating otitis is like a man smoking in a powder magazine. If the affection does not yield to persevering treatment during a month or so, no time should be lost in opening an outward route for the pus. He enumerates 18 different routes by which secretions in the middle ear may escape, including in the list the veins of the dura mater, the temporomaxillary veins, the round and oval fenestræ, etc. He has performed a prophylactic mastoid operation in 24 cases with the rapid recovery of the patients, while in 7 cases in which complications had already developed, the radical operation was able to save only one patient.

152. **Roldan's Method of Treating Hydrocele.**—Nine engravings accompany this article, showing the various steps of the intervention with which Roldan cures hydrocele vaginalis without recurrence. The patient's pelvis is slightly raised on a cushion to allow a vessel to be placed to receive the escaping fluid. The canula is introduced until it touches the opposite wall of the hydrocele, the guide drawn down inside. The latter is then removed and the fluid allowed to escape. The canula is left undisturbed in the cavity, and the outer end is attached to a rubber tube about 30 cm. long, which communicates with a graduated glass jar, with a capacity of about 150 gm., containing a solution of bichlorid or tincture of iodin. By raising the jar, the fluid flows down into the cavity of the hydrocele, but flows out again when the jar is lowered below the level of the table, the siphon action ensuring the evacuation of all the fluid after its mission is completed. He always injects first about 40 to 60 gm. of a 2 per cent. solution of cocain, siphoning it out afterward by the same method of raising and lowering the jar, following immediately with iodin, leaving the latter in the cavity for three or four minutes, and then rinsing out the last traces of it. During all these procedures the support of the surgeon's left hand must not be removed from underneath the scrotum.

Nordisches med. Archiv, Stockholm.

153 (XXXVI, Int. Med. No. 1.) *Case of Hypertrophic Tuberous Sclerosis with Multiple Angiomyosarcomata in Kidneys. H. C. Jacobeus (Lund).—Fall von hypertrophischer tuberöser Sklerose, etc.
154 *Pseudo-Anemie angiospastica. F. Vermehren (Copenhagen).
155 (No. 2.) Experimentelle Studien über die Lokalisation des Quecksilbers bei Quecksilbervergiftung. J. Almkvist (Stockholm).
156 *Klinische Studien über Gonorrhoe. H. I. Schlasberg (Stockholm). (Commenced in No. 1.)
157 Ueber maligne Lungen und Pleura-Tumoren. I. D. Oelrich (Lund). (Commenced in No. 1.)
158 Fall von sogenannter idiopathischer Oesophagus-Dilatation. F. Gregersen (Copenhagen). With literature.

153. **Tuberous Sclerosis with Kidney Lesions.**—Jacobeus mentions that multiple kidney tumors are noted as accompanying the tuberous sclerosis in 7 of the 25 cases on record. The brain findings in the case described are illustrated.

154. **Angiospastic Pseudo-Anemia.**—Vermehren's work is based on 10 absolutely typical cases, and a number of others less definite in their type. He has also encountered a number of cases in which the anemia stage of the neurosis had not been reached. A feeling of depression and weakness is a constant symptom in the typical cases. The working capacity is slight, and the subjects feel drowsy all the time, and occasionally have headache and vertigo. Transient amnesia is also noticed at times, with chilliness, short breathing and rapid heart action, with a tendency to palpitations under emotions. Another frequent symptom is the variability of the diuresis, the urine at times scanty and dark-colored, and again copious and limpid. The subjects are usually very pale. This clinical picture is constant, but other symptoms are liable to be superadded, among them hot flashes, the hands or feet "going to sleep," the complexion becomes livid, and these transient symptoms are followed by a depression almost amounting to collapse. In none of his cases was there actual anemia, but the condition was evidently due to abnormal vascular phenomena. Only 2 out of his 10 patients displayed any predisposition to nervousness. The age ranged from 13 to 57, and the condition had been noted from childhood or puberty, and in one case from the age of 40. He attributes it to an exaggerated excitability of the vasomotor centers. They react to the influence of cold, emotions, etc., in an abnormally intense manner. This neurosis differs from neurasthenia in several points, and is best described as angiospastic pseudo-anemia. The number of red corpuscles and proportion of hemoglobin are normal or above. In treatment, he put his patients on a milk-vegetable diet, the benefits of which were marked in nearly all the cases. Valerian displayed pronounced efficacy. In one case the patient, a girl of 17, was completely cured by a combination of valerian and potassium bromid with restriction of meat. Electricity was beneficial in some cases, but failed in others. He tried nitroglycerin in 1 case without effect. When a change of scene was possible, great benefit was derived, especially from a trip to the country. The oldest patient improved on a milk-vegetable diet for two weeks, and valerian until she felt better than for many years, she said. The condition had commenced at 40 in this case.

156. **Gonorrhea.**—Schlasberg believes that folliculitis is a frequent complication of gonorrheal urethritis and delays its healing. The paraurethral and preputial passages may become infected and delay the cure. The prostate may also prove a source of reinfection for the urethra. An epididymitis, on the other hand, favors the cure of urethritis and also of folliculitis. Gonorrheal inguinal adenitis may possibly have a similarly beneficial effect on the process in the urethra.